

Natural Gas Monthly

February 1999

Energy Information Administration

Office of Oil and Gas
U.S. Department of Energy
Washington, DC 20585

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Preface

The *Natural Gas Monthly (NGM)* is prepared in the Natural Gas Division, Office of Oil and Gas, Energy Information Administration (EIA), U.S. Department of Energy (DOE), under the direction of Joan E. Heinkel.

General questions and comments regarding the *NGM* may be referred to Ann M. Ducca (202) 586-6137. Specific technical questions may be referred to the appropriate persons listed in Appendix E.

The *NGM* highlights activities, events, and analyses of interest to public and private sector organizations associated with the natural gas industry. Volume and price data are presented each month for natural gas production, distribution, consumption, and interstate pipeline activities. Producer-related activities and underground storage data are also reported. From time to time, the *NGM* features articles designed to assist readers in using and interpreting natural gas information.

The data in this publication are collected on surveys conducted by the EIA to fulfill its responsibilities for gathering and reporting energy data. Some of the data are collected under the authority of the Federal Energy Regulatory Commission (FERC), an independent commission within the DOE, which has jurisdiction primarily in the regulation of electric utilities and the interstate natural gas industry. Geographic coverage is the 50 States and the District of Columbia.

Explanatory Notes supplement the information found in tables of the report. A description of the data collection surveys that support the *NGM* is provided in the Data Sources section. A glossary of the terms used in this report is also provided to assist readers in understanding the data presented in this publication.

All natural gas volumes are reported at a pressure base of 14.73 pounds per square inch absolute (psia) and at 60 degrees Fahrenheit. Cubic feet are converted to cubic meters by applying a factor of 0.02831685.

Common Abbreviations Used in the Natural Gas Monthly

AGA	American Gas Association	IOGCC	Interstate Oil and Gas Compact Commission
Bbl	Barrels	LNG	Liquefied Natural Gas
BLS	Bureau of Labor Statistics, U.S. Department of Labor	Mcf	Thousand Cubic Feet
Bcf	Billion Cubic Feet	MMBtu	Million British Thermal Units
BOM	Bureau of Mines, U.S. Department of the Interior	MMcf	Million Cubic Feet
Btu	British Thermal Unit	MMS	United States Minerals Management Service, U.S. Department of the Interior
DOE	U.S. Department of Energy	NGL	Natural Gas Liquids
DOI	U.S. Department of the Interior	OCS	Outer Continental Shelf
EIA	Energy Information Administration, U.S. Department of Energy	STIFS	Short-Term Integrated Forecasting System
FERC	Federal Energy Regulatory Commission	STEO	Short Term Energy Outlook
		Tcf	Trillion Cubic Feet

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Highlights

Overview

This issue of the *Natural Gas Monthly* contains estimates through February 1999 for many natural gas data series at the national level. Estimates of national natural gas prices are available through November 1998 for most series. A new methodology for estimating natural gas wellhead prices has been developed (see Note 8 in Appendix A) and will be used beginning with this issue. Table 4 reflects the application of this new methodology beginning with the price estimate for January 1999.

Highlights of the natural gas data contained in this issue are:

- The level of working gas in underground natural gas storage facilities is estimated to be 1,678 billion cubic feet at the end of February 1999, 18 percent higher than a year ago.
- Residential and commercial natural gas consumption through February 1999 are each estimated to be 9 percent above the levels of 1998. However, relatively warm weather in early 1998 had dampened the demand for natural gas for space heating needs.
- The cumulative average natural gas wellhead price for January through November 1998 is estimated to be \$1.98 per thousand cubic feet, 15 percent below that of 1997.

Supply

Ample supplies that characterized the natural gas market in 1998 have continued into early 1999. Natural gas production is estimated to be 1,487 billion cubic feet in February 1999, or 53.1 billion cubic feet per day (Table 1). Cumulatively for January and February, natural gas production is estimated to be 3,105 billion cubic feet (Figure HI1). Both the February level and the cumulative levels are virtually the same as in 1998. Net natural gas imports are also running even with those of last year. Net imports in February 1999 are estimated to be 236 billion cubic feet, compared with 237 billion cubic feet in February 1998.

Supplies of working gas in underground storage facilities remain plentiful with 1 month remaining in the heating season (November through March). The level of working gas at the end of February 1999 is estimated to be 1,678 billion cubic feet (Table 10), 18 percent higher than a year ago and the highest level seen at this point in the heating season since February 1992 (Figure HI2). Still, cumulative

net withdrawals of natural gas for January and February 1999 are estimated to be far above those of 1998 (39 and 30 percent higher, respectively), but are closer to the levels of early 1997 and 1996. Net withdrawals in February 1999 are estimated to be 390 billion cubic feet.

End-Use Consumption

Total end-use consumption of natural gas in early 1999 is running approximately 4 percent ahead of the level in 1998. Cumulative consumption for January and February in the weather-sensitive residential and commercial sectors is estimated to be 9 percent above that of 1998 in both sectors (Figure HI3). However, cumulative residential consumption is actually below that of both 1997 and 1996, and cumulative commercial consumption is within 2 percent of the levels for those years. For just the month of February 1999, residential consumption is estimated to be 727 billion cubic, 6 percent higher than in 1998, and commercial consumption is estimated to be 425 billion cubic feet, 9 percent higher than in 1998 (Table 3).

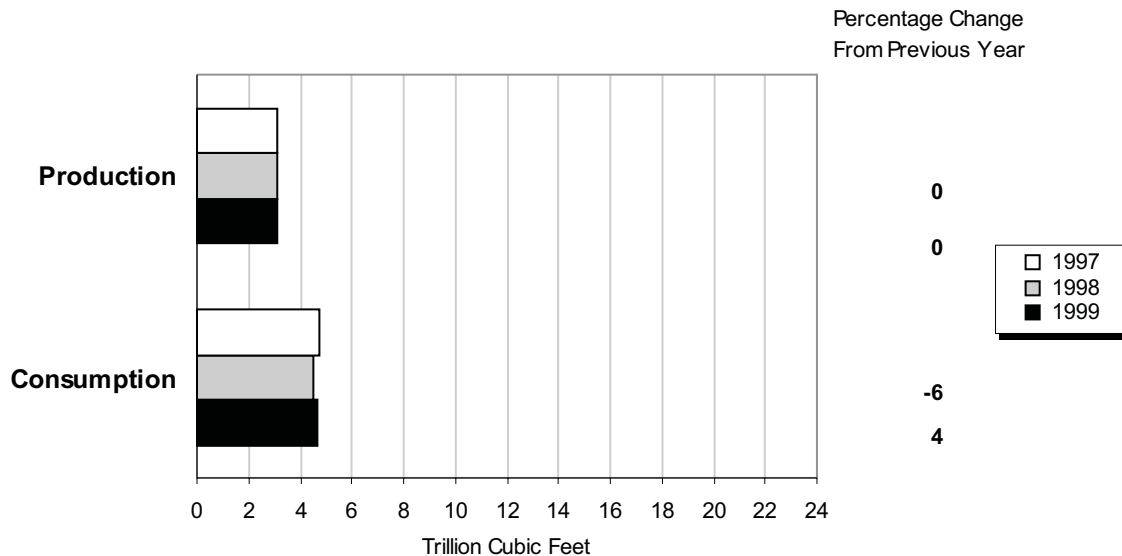
Consumption of natural gas by industrial users in February 1999 is estimated to be 697 billion cubic feet, 4 percent lower than in February 1998. Cumulatively for the year, industrial consumption is approximately 3 percent lower than in 1998.

Information on natural gas consumption by electric utilities is available only through November 1998. Cumulatively in 1998, electric utilities consumed an estimated 3,072 billion cubic feet of natural gas, 11 percent more than during the same period in 1997. The year 1998 was only the second year in this decade that electric utility consumption exceeded 3,000 billion cubic feet, an event that had been common prior to the mid-1980s.

Prices

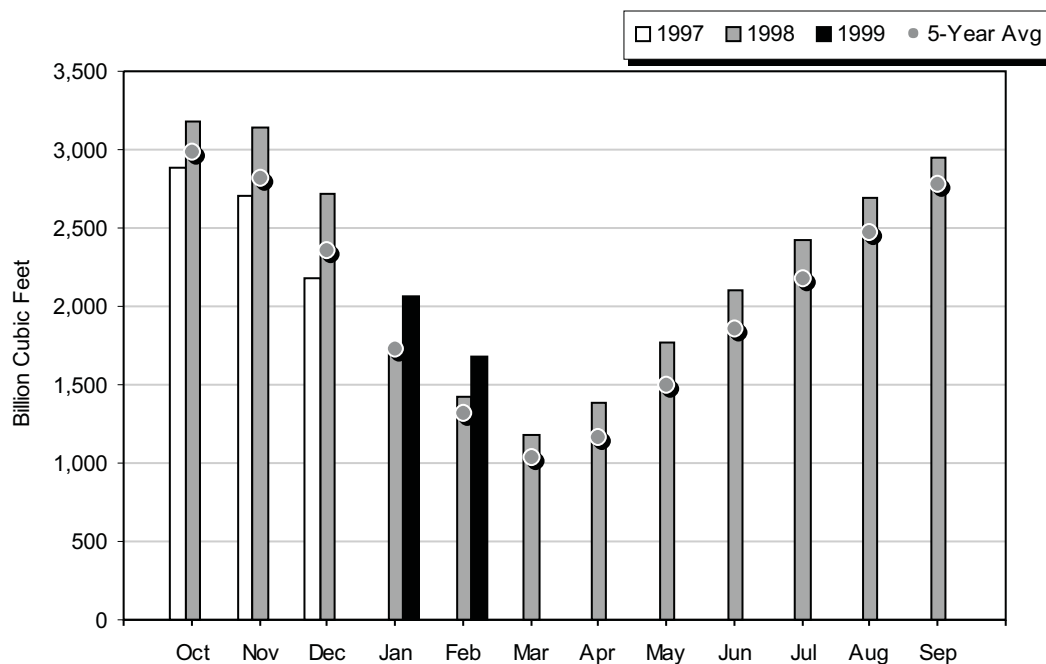
Cumulative average prices for several natural gas price series in 1998 are estimated to be at least 10 percent below those of 1997 according to the most recent data available through November (Figure HI4). The exceptions are the residential and commercial sectors, which are only 1 and 5 percent lower, respectively. Cumulatively through November, the average natural gas wellhead price in 1998 is estimated to be \$1.98 per thousand cubic feet, 15 percent lower than in 1997 for the same period (Table 4). Ample natural gas supplies have contributed to relatively lower prices throughout 1998. The average city gate price is estimated to be \$3.13 per thousand cubic feet through November 1998, 13 percent lower than in 1997.

Figure HI1. Natural Gas Production and Consumption, January-February, 1997-1999



Source: Table 2.

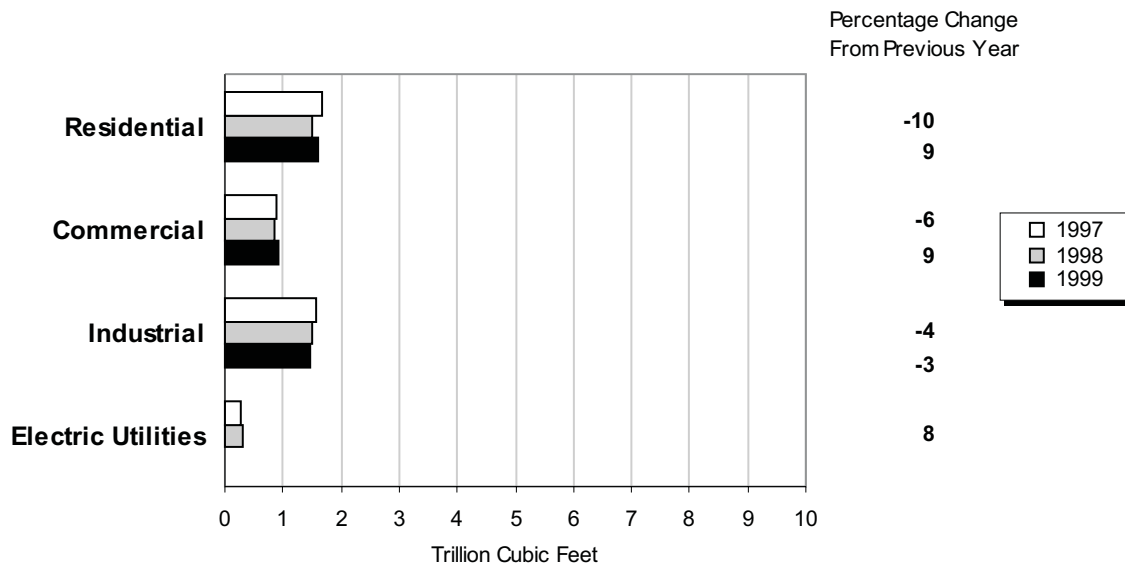
Figure HI2. Working Gas in Underground Storage in the United States, 1997-1999



Note: The 5-year average is calculated using the latest available monthly data. For example, the December average is calculated from December storage levels for 1994 to 1998 while the January average is calculated from January levels for 1995 to 1999. Data are reported as of the end of the month, thus October data represent the beginning of the heating season.

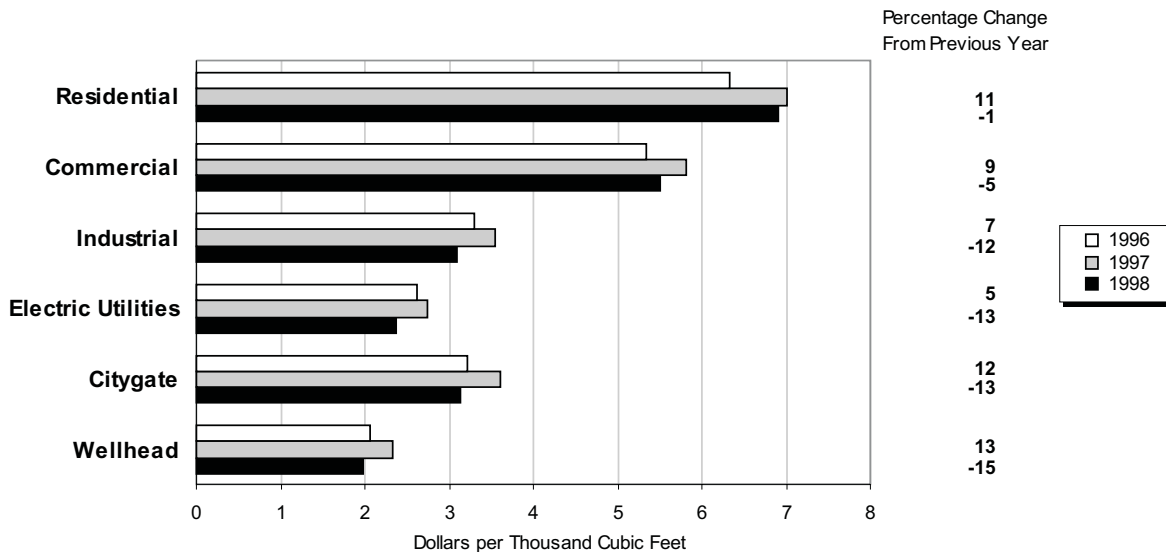
Source: Form EIA-191, "Underground Natural Gas Storage Report," Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," and Short-Term Integrated Forecasting System.

Figure HI3. Natural Gas Delivered to Consumers, January-February, 1997-1999



Note: The reporting of electric utility deliveries is 3 months behind the reporting of other deliveries.
Source: Table 3.

Figure HI4. Average Delivered and Wellhead Natural Gas Prices, January-November, 1996-1998



Note: Commercial and industrial average prices reflect onsystem sales only. The reporting of electric utility prices is 1 month behind the reporting of other prices.
Source: Table 4.

The average price paid by the industrial sector in 1998 is estimated to be \$3.10 per thousand cubic feet through November 1998, 12 percent below the 1997 price for the same period.¹ For electric utilities, where data are available only through October, the average price is estimated to be \$2.38 per thousand cubic feet, 13 percent below the 1997 level. Residential and commercial sector prices through November 1998 are estimated to be \$6.91 and \$5.50 per thousand cubic, respectively.

Natural gas futures settlement prices through mid-February 1999, for the nearby month contract at the Henry Hub, were at least \$0.20 per million Btu below those of 1998 for the same period (Figure HI5). During the first 3 weeks of February, daily prices generally were \$0.40 to \$0.50 per million Btu lower. The futures price for the March contract settled at \$1.745 per million Btu on February 19; the contract will close on February 25. In 1998, the March contract closed at \$2.286 per million Btu.

Figure HI5. Daily Futures Settlement Prices at the Henry Hub



Note: The future price is for the nearby month contract, that is, for the next contract to terminate trading. Contracts are traded on the New York Mercantile Exchange. April 1 is the beginning of the natural gas storage refill season. November 1 is the beginning of the heating season.

Source: Commodity Futures Trading Commission, Division of Economic Analysis.

¹ End-use prices in the residential, commercial, and industrial sectors are for onsystem gas sales only. While monthly onsystem sales are nearly 100 percent of residential deliveries, in 1998 they have been from 47 to 72 percent of commercial deliveries and only 13 to 17 percent of industrial deliveries (Table 4).

Table 1. Summary of Natural Gas Production in the United States, 1993-1999
(Billion Cubic Feet)

Year and Month	Gross Withdrawals	Repressuring	Nonhydrocarbon Gases Removed ^a	Vented and Flared	Marketed Production (Wet)	Extraction Loss ^b	Dry Gas Production ^c
1993 Total	22,726	3,103	414	227	18,982	886	18,095
1994 Total	23,581	3,231	412	228	19,710	889	18,821
1995 Total	23,744	3,565	388	284	19,506	908	18,599
1996 Total	24,052	3,510	518	272	19,751	958	18,793
1997							
January	2,089	305	50	25	1,709	83	1,626
February	1,905	289	46	22	1,549	75	1,474
March	2,103	311	51	23	1,720	83	1,636
April	1,993	285	48	22	1,639	80	1,559
May	2,041	268	50	22	1,702	83	1,619
June	1,952	275	47	18	1,612	78	1,534
July	2,020	272	51	23	1,674	81	1,593
August	2,022	279	52	21	1,671	81	1,590
September	1,988	285	50	21	1,632	79	1,553
October	2,057	307	51	20	1,678	81	1,597
November	1,999	302	52	19	1,626	79	1,547
December	2,044	314	52	22	1,655	80	1,575
Total	24,213	3,492	599	256	19,866	964	18,902
1998							
January	RE2,101	RE332	E46	E22	RE1,702	RE83	RE1,619
February	RE1,909	RE294	E42	RE18	RE1,555	RE75	RE1,480
March	RE2,089	RE321	E45	RE21	RE1,702	RE83	RE1,619
April	RE2,005	E306	E44	E21	RE1,634	E79	RE1,555
May	RE2,073	RE318	E43	E20	RE1,692	E82	RE1,610
June	RE2,005	E294	E44	E22	RE1,645	RE80	RE1,565
July	RE2,036	E295	E45	E24	RE1,672	E81	RE1,591
August	RE2,051	E292	RE46	RE24	RE1,689	E82	RE1,607
September	RE2,008	E314	RE44	E22	RE1,628	E79	RE1,549
October	RE2,093	RE352	RE44	E23	E1,673	E81	E1,592
November	RE2,030	RE316	E44	E23	E1,647	E80	E1,567
December	E2,112	E338	E46	E24	E1,705	E83	E1,622
Total	RE24,512	RE3,771	RE533	RE263	RE19,945	RE967	RE18,977
1999							
<i>January(STIFS)</i>	NA	NA	NA	NA	E1,701	E82	E1,618
<i>February(STIFS)</i>	NA	NA	NA	NA	E1,563	E76	E1,487
1999 YTD	NA	NA	NA	NA	E3,264	E158	E3,105
1998 YTD	E4,011	E626	E87	E40	E3,257	E158	E3,099
1997 YTD	3,994	594	96	46	3,258	158	3,100

^a See Appendix A, Explanatory Note 1, for a discussion of data on Nonhydrocarbon Gases Removed.

^b Extraction loss is only collected on an annual basis. Annually it is between 4 and 5 percent of marketed production. Monthly extraction loss is estimated from monthly marketed production by assuming that the preceding annual percentage remains constant for the next twelve months.

^c Equal to marketed production (wet) minus extraction loss.

^E Estimated Data.

^{RE} Revised Estimated Data.

^{NA} Not Available.

Notes: Data for 1993 through 1997 are final. All other data are preliminary

unless otherwise indicated and contain estimates for selected States (see Table 7). Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). Geographic coverage is the 50 States and the District of Columbia. Totals may not equal sum of components because of independent rounding.

Sources: 1993-1997: Energy Information Administration (EIA), *Natural Gas Annual 1997*. January 1998 through current month: Form EIA-895, "Monthly Quantity of Natural Gas Report," STIFS, and EIA estimates. See Appendix A, Explanatory Notes 1, 3, and 6, for discussion of computation and estimation procedures and revision policies.

Table 2. Supply and Disposition of Dry Natural Gas in the United States, 1993-1999
(Billion Cubic Feet)

Year and Month	Dry Gas Production	Supplemental Gaseous Fuels ^a	Net Imports	Net Storage Withdrawals ^b	Balancing Item ^c	Consumption ^d
1993 Total	18,095	119	2,210	-36	-110	20,279
1994 Total	18,821	111	2,462	-286	-400	20,708
1995 Total	18,599	110	2,687	415	-230	21,581
1996 Total	18,793	109	2,784	2	279	21,967
1997						
January	1,626	12	266	709	-90	2,523
February	1,474	10	228	371	170	2,253
March	1,636	9	241	160	69	2,115
April	1,559	8	224	-61	64	1,795
May	1,619	8	232	-333	62	1,588
June	1,534	6	223	-379	67	1,451
July	1,593	7	225	-293	5	1,537
August	1,590	8	227	-334	28	1,518
September	1,553	6	226	-349	3	1,440
October	1,597	8	239	-218	-92	1,534
November	1,547	10	259	196	-116	1,895
December	1,575	11	246	553	-68	2,317
Total	18,902	103	2,837	24	106	21,972
1998						
January	^{RE} 1,619	12	267	466	^R 38	^R 2,402
February	^{RE} 1,480	10	237	^R 300	78	^R 2,104
March	^{RE} 1,619	11	244	^R 242	^R 10	^R 2,126
April	^{RE} 1,555	9	235	^R 199	^R 107	^R 1,708
May	^{RE} 1,610	8	240	-393	^R 51	^R 1,517
June	^{RE} 1,565	7	236	-323	^R 12	^R 1,474
July	^{RE} 1,591	9	251	-314	^R 38	^R 1,575
August	^{RE} 1,607	9	244	-283	^R 2	^R 1,579
September	^{RE} 1,549	9	255	-227	^R 111	^R 1,475
October	^E 1,592	10	^{RE} 259	-255	^R 136	^R 1,469
November	^E 1,567	11	^{RE} 246	34	^R 151	^R 1,707
December	^E 1,622	^E 12	^E 257	435	^E 174	^E 2,152
Total	^{RE} 18,977	^E 118	^{RE} 2,971	^R -518	^{RE} -259	^{RE} 21,289
1999						
<i>January(STIFS)</i>	^E 1,618	^E 13	^E 273	^E 650	^{RE} -30	^{RE} 2,524
<i>February(STIFS)</i>	^E 1,487	^E 11	^E 236	390	^E 36	^E 2,161
1999 YTD	^E 3,105	^E 25	^E 509	^E 1,040	^E 6	^E 4,686
1998 YTD	^E 3,099	22	503	766	115	4,506
1997 YTD	3,100	21	494	1,080	80	4,776

^a Supplemental gaseous fuels data are only collected on an annual basis except for the Dakota Gasification Inc. coal gasification facility which provides data each month. The ratio of annual supplemental fuels (excluding Dakota Gasification Inc.) to the sum of dry gas production, net imports, and net withdrawals from storage is calculated. This ratio, which varies between .0025 and .0037, is applied to the monthly sum of these three elements. The Dakota Gasification Inc. monthly value is added to the result to produce the monthly supplemental fuels estimate.

^b Monthly and annual data for 1992 through 1997 include underground storage and liquefied natural gas storage. Data for January 1998 forward include underground storage only. See Appendix A, Explanatory Note 7 for discussion of computation procedures.

^c Represents quantities lost and imbalances in data due to differences among data sources. See Appendix A, Explanatory Note 9, for full discussion.

^d Consists of pipeline fuel use, lease and plant fuel use, vehicle fuel, and deliveries to consuming sectors as shown in Table 3.

^R Revised Data.

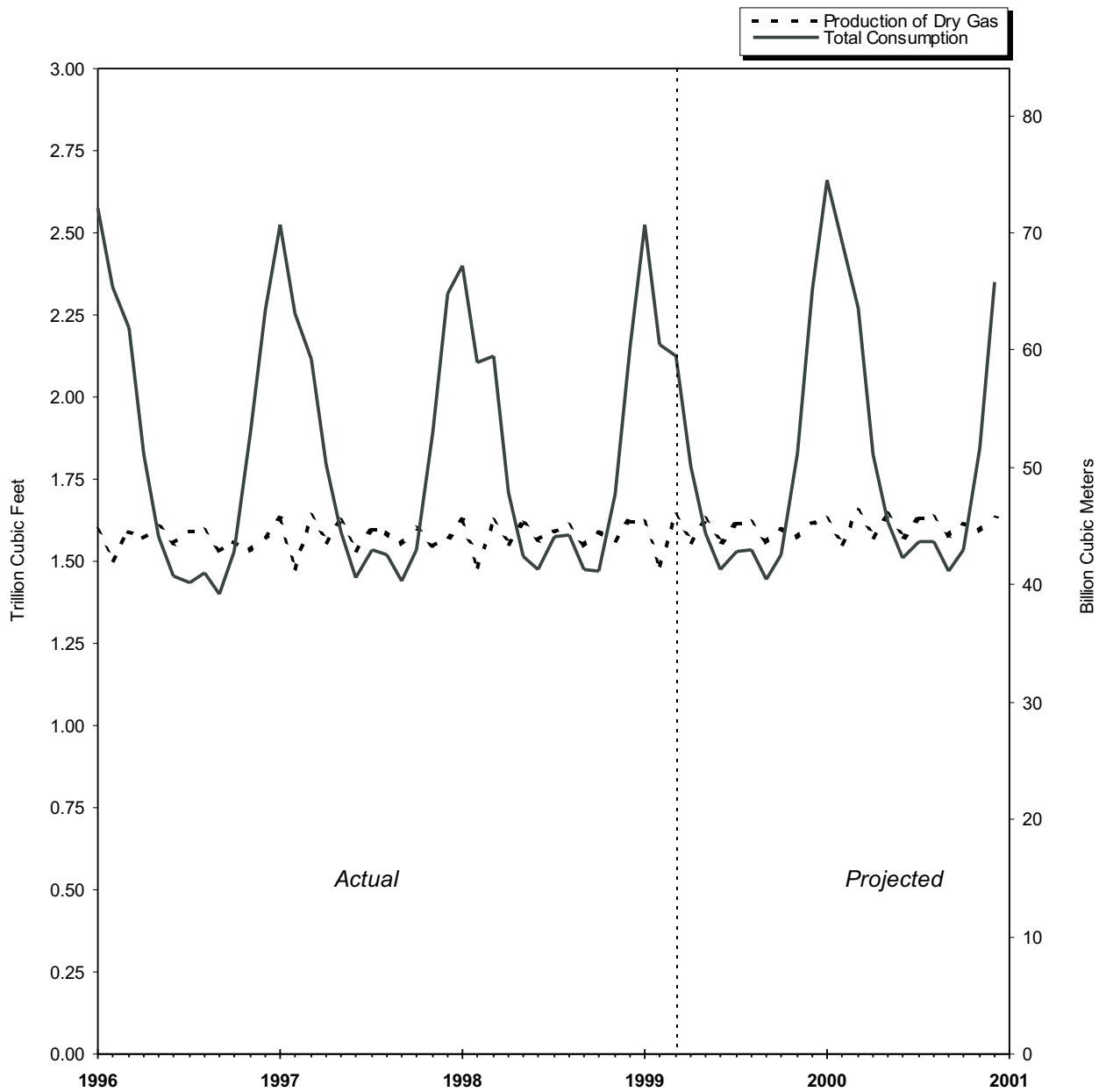
^E Estimated Data.

^{RE} Revised Estimated Data.

Notes: Data for 1993 through 1997 are final. All other data are preliminary unless otherwise indicated. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). Geographic coverage is the 50 States and the District of Columbia. Totals may not equal sum of components because of independent rounding.

Sources: 1993-1997: Energy Information Administration (EIA), *Natural Gas Annual 1997*. 1997: EIA-895, "Monthly Quantity of Natural Gas Report," Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form EIA-191, "Monthly Underground Gas Storage Report," and Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports and EIA computations. January 1998 through current month: EIA, Form EIA-895, Form EIA-857, Form EIA-191, EIA computations, and estimates, Short-Term Integrated Forecasting System (STIFS) computations, and Office of Fossil Energy, Natural Gas Imports and Exports. See Appendix A for discussion of computation and estimation procedures and revision policies.

Figure 1. Production and Consumption of Natural Gas in the United States, 1996-2000



Sources: 1996 through the current month: Table 2. Projected data: Energy Information Administration, *Short-Term Energy Outlook* (January 1999)

Table 3. Natural Gas Consumption in the United States, 1993-1999

(Billion Cubic Feet)

Year and Month	Lease and Plant Fuel ^a	Pipeline Fuel ^b	Delivered to Consumers					Total Consumption
			Residential	Commercial	Industrial	Electric Utilities	Total	
1993 Total	1,172	624	4,956	^c 2,863	7,981	2,682	18,483	20,279
1994 Total	1,124	685	4,848	^c 2,897	8,167	2,987	18,899	20,708
1995 Total	1,220	700	4,850	^c 3,034	8,580	3,197	19,660	21,581
1996 Total	1,250	711	5,241	^c 3,161	8,870	2,732	20,006	21,967
1997								
January	104	88	902	475	816	139	2,332	2,523
February	94	78	757	421	759	143	2,081	2,253
March	104	73	606	360	782	190	1,938	2,115
April	99	61	433	270	739	193	1,635	1,795
May	102	54	284	204	713	232	1,432	1,588
June	97	49	164	154	690	297	1,305	1,451
July	101	52	128	144	683	429	1,385	1,537
August	101	51	118	140	717	391	1,366	1,518
September	99	49	129	142	689	333	1,293	1,440
October	102	52	234	190	711	244	1,380	1,534
November	99	65	497	306	748	180	1,731	1,895
December	101	81	731	411	796	197	2,135	2,317
Total	1,202	752	4,984	3,223	8,843	2,968	20,018	21,972
1998								
January	^{RE} 107	82	803	^R 448	^R 791	171	^R 2,213	^R 2,402
February	^{RE} 97	72	683	^R 391	^R 727	134	^R 1,935	^R 2,104
March	^{RE} 107	73	639	^R 370	^R 744	194	^R 1,947	^R 2,126
April	^E 102	58	407	^R 255	695	190	^R 1,547	^R 1,708
May	^{RE} 106	52	220	^R 176	669	293	^R 1,359	^R 1,517
June	^{RE} 103	50	152	^R 144	^R 645	379	^R 1,320	^R 1,474
July	^{RE} 105	54	^R 130	153	684	449	^R 1,417	^R 1,575
August	^E 106	54	^R 115	^R 161	686	458	1,419	1,579
September	^{RE} 102	^R 50	120	159	^R 665	380	^R 1,323	^R 1,475
October	^E 105	50	^R 197	^R 177	^R 693	246	^R 1,314	^R 1,469
November	^E 103	58	385	262	720	178	1,546	1,707
December(STIFS)	^E 107	^E 72	^E 655	^E 389	^E 742	NA	^E 1,974	^E 2,152
Total	^{RE} 1,248	^{RE} 726	^{RE} 4,507	^{RE} 3,085	^{RE} 8,462	NA	^{RE} 19,314	^{RE} 21,289
1999								
January(STIFS)	^E 105	^E 84	^E 887	^E 491	^E 782	NA	^{RE} 2,335	^{RE} 2,524
February(STIFS)	^E 97	^E 68	^E 727	^E 425	^E 697	NA	^E 1,997	^E 2,161
1999 YTD^d	^E 202	^E 152	^E 1,614	^E 916	^E 1,479	NA	^E 4,332	^E 4,686
1998 YTD	^E 204	154	1,487	839	1,518	305	4,148	4,506
1997 YTD	198	166	1,660	896	1,575	282	4,413	4,776

^a Plant fuel data are only collected on an annual basis and monthly lease fuel data are only collected annually. Lease and plant fuel estimates have been between 6 and 7 percent of marketed production annually. Monthly lease and plant fuel use is estimated from monthly marketed production by assuming that the preceding annual percentage remains constant for the next twelve months.

^b Pipeline fuel use is only collected on an annual basis. Annually it is between 3 and 4 percent of total consumption. Monthly pipeline fuel data are estimated from monthly total consumption(excluding pipeline fuel) by assuming that the preceding annual percentage remains constant for the next twelve months.

^c Vehicle fuel deliveries, in billion cubic feet, were 0.4 in 1991, 0.5 in 1992, 1.0 in 1993, 1.7 in 1994, 2.7 in 1995, 2.9 in 1996 and 4.4 in 1997.

^d Year-to-date volume represents months for which volume information is available in the current year.

^R Revised Data.

^E Estimated Data.

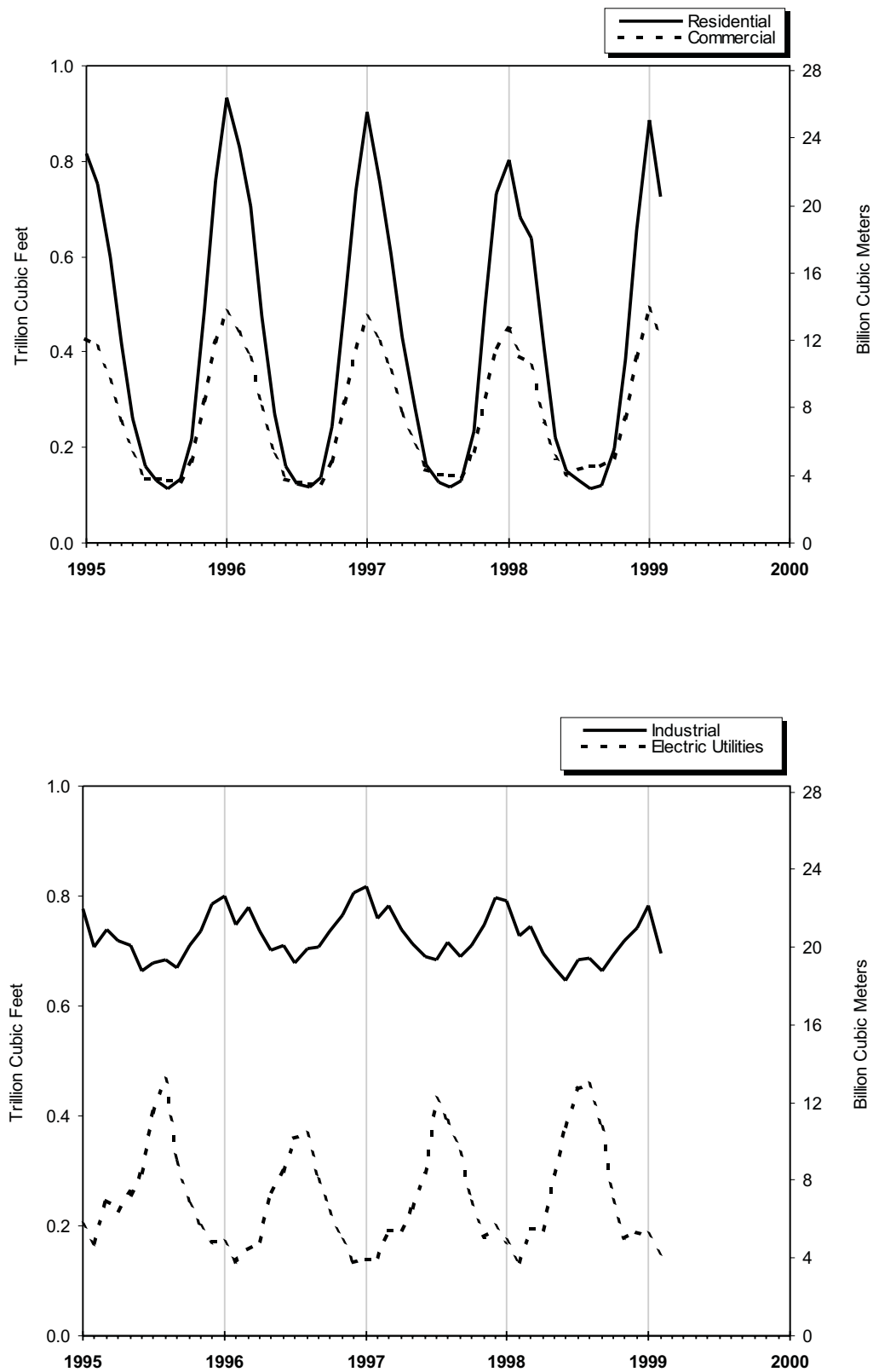
^{RE} Revised Estimated Data.

NA Not Available.

Notes: Data for 1993 through 1997 are final. All other data are preliminary unless otherwise indicated. Estimates for the most recent three months are derived from the Short-Term Integrated Forecasting System (STIFS). Geographic coverage is the 50 States and the District of Columbia. Totals may not equal sum of components because of independent rounding. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Sources: 1993-1997: Energy Information Administration (EIA): Form EIA-627, "Annual Quantity and Value of Natural Gas Report," (thru 1994), Form EIA-895 "Monthly Quantity of Natural Gas Report," (1995 forward), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form EIA-759, "Monthly Power Plant Report," EIA computations, and *Natural Gas Annual 1997*. January 1998 through the current month: EIA: Form EIA-895, Form EIA-857, Form EIA-759, and STIFS computations. See Appendix A, Explanatory Note 5, for computation procedures and revision policy.

Figure 2. Natural Gas Deliveries to Consumers in the United States, 1995-1999



Sources: Table 3.

Table 4. Selected National Average Natural Gas Prices, 1992-1998

(Dollars per Thousand Cubic Feet)

Year and Month	Wellhead Price ^a	City Gate Price	Delivered to Consumers					
			Residential Price	Commercial		Industrial		Electric Utilities Price
				Price	% of Total ^b	Price	% of Total ^b	
1992 Annual Average	1.74	3.01	5.89	4.88	83.2	2.84	30.3	2.36
1993 Annual Average	2.04	3.21	6.16	5.22	83.9	3.07	29.7	2.61
1994 Annual Average	1.85	3.07	6.41	5.44	79.3	3.05	25.5	2.28
1995 Annual Average	1.55	2.78	6.06	5.05	76.7	2.71	24.5	2.02
1996								
January	2.05	3.14	5.64	5.29	83.2	3.61	22.0	2.87
February	1.89	3.16	5.82	5.25	83.3	3.61	22.7	3.07
March	1.95	3.17	5.93	5.36	81.8	3.52	22.3	2.73
April	2.08	3.22	6.27	5.34	79.5	3.42	20.5	2.68
May	2.01	3.18	6.84	5.40	74.6	3.14	18.7	2.52
June	2.08	3.41	7.83	5.43	70.0	3.13	16.7	2.59
July	2.25	3.49	8.64	5.46	67.8	3.17	18.6	2.69
August	2.10	3.46	8.73	5.56	66.3	3.05	17.4	2.57
September	1.85	3.05	7.99	5.46	67.1	2.77	16.9	2.24
October	1.94	2.94	7.05	5.33	69.1	2.89	17.2	2.37
November	2.50	3.46	6.37	5.40	75.7	3.57	18.5	3.04
December	3.26	4.18	6.47	5.78	78.1	4.20	20.0	3.98
Annual Average	2.17	3.34	6.34	5.40	77.6	3.42	19.4	2.69
1997								
January	3.40	4.28	6.74	6.18	78.8	4.65	21.6	4.06
February	2.49	3.76	6.79	6.13	78.4	4.20	19.7	2.97
March	1.79	3.04	6.52	5.72	74.0	3.35	18.8	2.29
April	1.81	2.92	6.53	5.46	71.8	3.02	18.4	2.30
May	2.00	3.11	6.83	5.39	65.5	2.96	18.1	2.41
June	2.08	3.41	8.30	5.64	61.7	3.10	17.4	2.52
July	2.00	3.44	8.78	5.35	59.5	3.06	15.3	2.44
August	2.08	3.34	8.99	5.43	57.9	2.90	15.6	2.53
September	2.33	3.50	8.84	5.57	59.5	3.25	15.1	2.96
October	2.68	3.86	7.69	5.73	62.9	3.69	16.8	3.24
November	2.92	3.91	6.86	5.85	70.4	4.07	18.0	3.41
December	2.28	3.42	6.54	5.70	72.8	3.79	17.2	2.77
Annual Average	2.32	3.61	6.94	5.79	70.8	3.59	17.7	2.74
1998								
January	^{RE} 1.99	3.28	6.47	5.59	^R 72.0	3.68	^R 15.1	2.64
February	^{RE} 2.00	3.08	6.41	5.56	^R 70.9	3.52	^R 15.4	2.51
March	^{RE} 2.08	3.22	6.27	^R 5.39	^R 71.5	3.41	^R 16.6	2.54
April	^{RE} 2.22	3.21	6.78	5.58	^R 66.7	3.22	15.0	2.59
May	^{RE} 2.03	3.11	7.59	5.62	^R 60.0	3.10	13.9	2.46
June	^{RE} 1.97	^R 2.99	8.41	5.53	^R 59.6	^R 2.96	^R 14.0	2.40
July	^{RE} 2.08	^R 3.39	8.62	^R 5.62	^R 51.0	2.99	12.7	2.50
August	^E 1.84	^R 3.14	^R 9.19	5.49	^R 46.6	2.73	13.6	2.21
September	^E 1.83	2.75	8.93	5.52	49.4	^R 2.63	14.5	2.16
October	^E 1.84	^R 3.01	^R 7.62	^R 5.33	^R 54.8	2.75	^R 14.3	2.22
November	^E 1.94	3.01	6.66	5.28	61.9	2.82	15.4	NA
1998 YTD^c	^E1.98	3.13	6.91	5.50	63.7	3.10	14.6	2.38
1997 YTD	2.33	3.60	7.01	5.81	70.5	3.54	17.8	2.74
1996 YTD	2.06	3.22	6.32	5.35	77.6	3.30	19.3	2.62

^a See Appendix A, Explanatory Note 8, of the *Natural Gas Monthly (NGM)* for discussion of wellhead prices.

^b Percentage of total deliveries represented by onsystem sales, see Figure 6. See Table 25 for breakdown by State.

^c Year-to-date price represents months for which price information is available in the current year.

^R Revised Data.

^E Estimated Data.

^{RE} Revised Estimated Data.

^{NA} Not Available.

Notes: Data for 1992 through 1997 are final. All other data are

preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Sources: 1992-1997: Energy Information Administration (EIA) *Natural Gas Annual 1997*. 1997 forward: EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and EIA estimates. January 1998 through current month: See Appendix A, Explanatory Note 8 for estimation procedures and revision policy.

Figure 3. Average Price of Natural Gas Delivered to Consumers in the U.S., 1995-1999

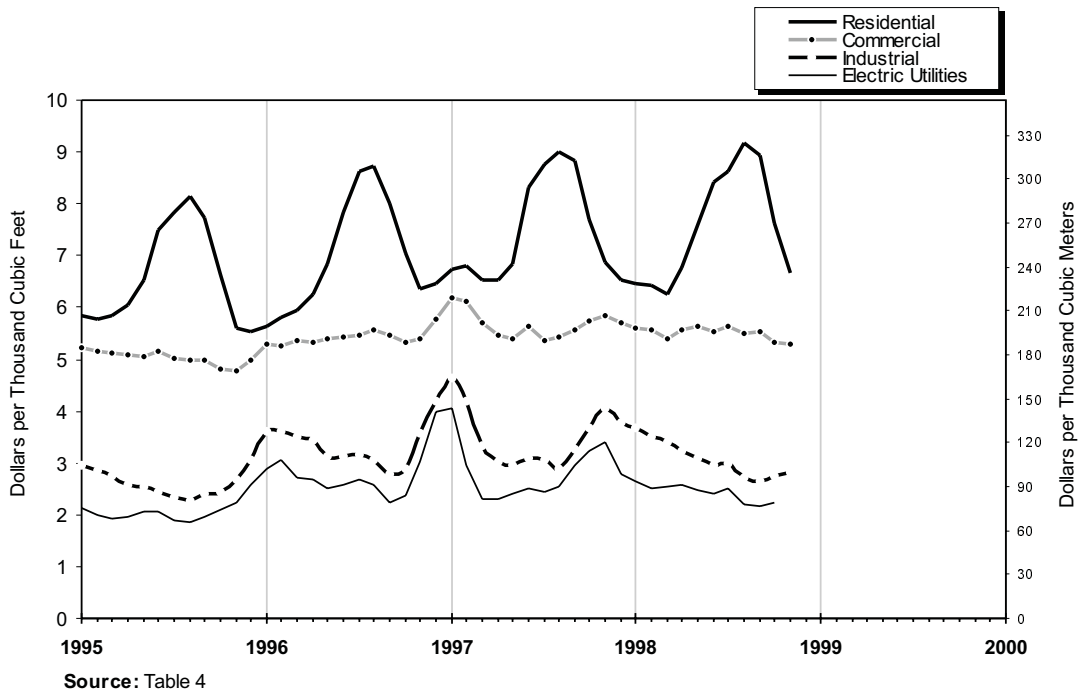


Figure 4. Average Price of Natural Gas in the United States, 1995-1999

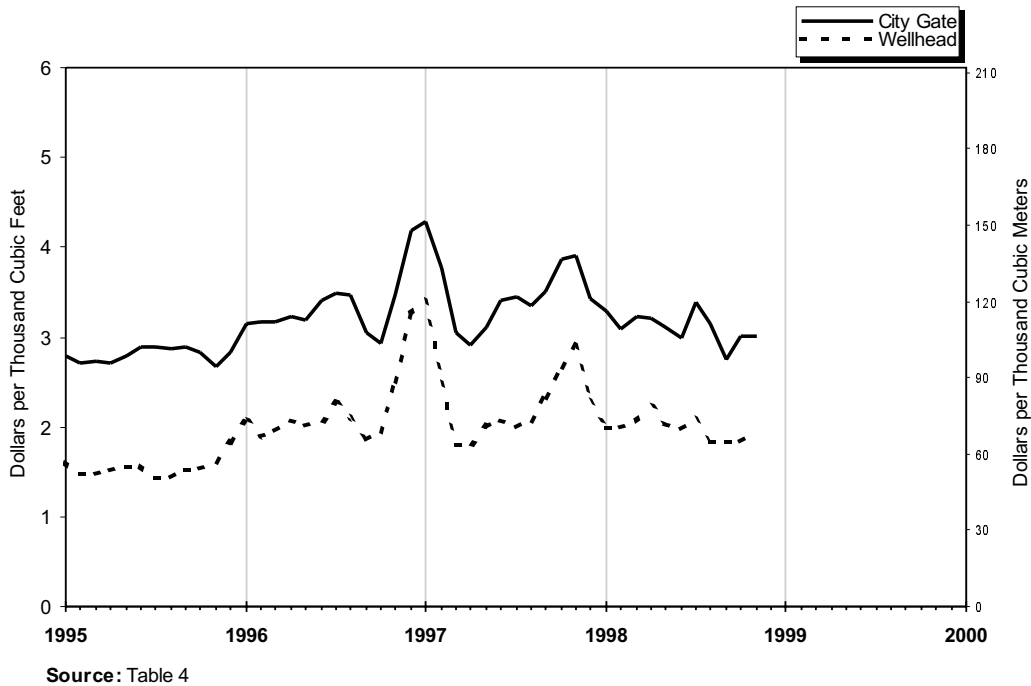


Table 5. U.S. Natural Gas Imports, by Country, 1992-1998
(Volumes in Million Cubic Feet, Prices in Dollars per Thousand Cubic Feet)

Year and Month	Pipeline				LNG		Other		Total	
	Canada		Mexico		Algeria		Volume	Average Price	Volume	Average Price
	Volume	Average Price	Volume	Average Price	Volume	Average Price				
1992 Total	2,094,387	1.84	—	—	43,116	2.54	—	—	2,137,504	1.85
1993 Total	2,266,751	2.02	1,678	1.94	81,685	2.20	—	—	2,350,115	2.03
1994 Total	2,566,049	1.86	7,013	1.99	50,778	2.28	—	—	2,623,839	1.87
1995 Total	2,816,408	1.48	6,722	1.53	17,918	2.30	—	—	2,841,048	1.49
1996										
January	259,656	2.08	1,499	2.03	2,460	2.81	—	—	263,615	2.09
February	230,546	1.94	698	2.14	2,512	2.79	—	—	233,756	1.95
March	237,668	1.91	1,259	2.34	2,599	3.06	—	—	241,526	1.92
April	230,928	1.86	1,369	2.18	4,559	2.43	—	—	236,857	1.87
May	245,522	1.70	4,024	2.14	2,612	2.58	—	—	252,158	1.72
June	225,875	1.70	711	2.35	0	—	—	—	226,587	1.70
July	232,908	1.82	1,313	2.58	2,642	3.00	—	—	236,864	1.84
August	235,199	1.80	30	1.70	2,629	2.56	—	—	237,858	1.80
September	234,206	1.60	770	1.69	0	—	^a 2,524	3.34	237,500	1.62
October	241,294	1.68	1,110	2.37	5,116	2.96	—	—	247,520	1.71
November	245,795	2.25	982	2.85	5,031	2.59	—	—	251,807	2.26
December	263,681	3.00	96	3.30	5,164	2.51	^a 2,425	3.57	271,366	3.00
Total	2,883,277	1.96	13,862	2.25	35,325	2.70	4,949	3.45	2,937,413	1.97
1997										
January	266,756	3.27	1,555	3.09	7,560	2.78	^a 2,417	3.68	278,288	3.26
February	230,352	2.50	2,526	2.49	7,667	3.00	—	—	240,545	2.52
March	251,328	1.70	3,127	1.83	2,530	2.98	—	—	256,985	1.72
April	235,431	1.66	189	1.92	2,557	2.23	—	—	238,178	1.67
May	234,345	1.81	2,380	2.03	2,552	2.20	^b 2,455	2.68	241,732	1.83
June	225,366	1.87	1,692	2.20	5,059	2.49	—	—	232,118	1.88
July	229,479	1.82	1,088	1.98	5,026	2.48	—	—	235,593	1.84
August	237,142	1.81	6	2.35	7,535	2.43	—	—	244,684	1.83
September	232,090	2.00	29	2.47	5,030	2.41	^b 2,337	2.88	239,486	2.01
October	245,742	2.32	965	2.92	5,050	2.70	—	—	251,758	2.33
November	257,782	2.71	1,874	2.82	7,542	2.89	^b 4,893	3.07	272,091	2.72
December	253,338	2.17	1,810	2.12	7,567	2.88	—	—	262,716	2.19
Total	2,899,152	2.15	17,243	2.32	65,675	2.67	12,103	3.08	2,994,173	2.17
1998										
January	273,189	2.02	56	2.11	10,105	2.89	—	—	283,351	2.05
February	235,288	1.95	2,824	1.97	7,607	2.83	^b 2,171	3.84	247,890	1.99
March	258,067	1.99	382	2.20	5,166	3.12	—	—	263,615	2.01
April	242,191	2.00	3,251	2.37	2,549	2.20	—	—	247,991	2.01
May	242,041	1.98	846	2.15	7,596	2.52	—	—	250,483	2.00
June	243,259	1.93	5	2.21	5,125	2.39	^b 2,441	2.79	250,830	1.95
July	256,506	1.88	1,821	2.13	5,086	2.20	—	—	263,414	1.89
August	249,717	1.80	1,414	1.78	2,540	2.20	^b 2,321	2.80	255,993	1.81
September	260,599	1.75	2,256	1.86	5,133	1.73	—	—	267,988	1.75
October	^R 263,823	NA	^E 1,800	NA	5,025	NA	—	—	^{RE} 270,647	NA
November	^R 246,409	NA	^E 1,900	NA	5,042	NA	^{ab} 5,020	NA	^{RE} 258,370	NA
December	^E 258,242	NA	^E 1,900	NA	7,572	NA	^a 4,701	NA	^E 272,414	NA
Total	^E3,029,331	NA	^E18,455	NA	68,546	NA	16,654	NA	^E3,132,985	NA

^a Received from the United Arab Emirates.

^b Received from Australia.

^{ab} Received 2,667 from the United Arab Emirates and 2,353 from Australia.

^R Revised Data.

^E Estimated Data.

^{RE} Revised Estimated Data.

^{NA} Not Available.

— Not Applicable.

— Data not available.

Sources: 1992-1994: Energy Information Administration, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." January 1995 through the current month (except estimates): Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports*. Estimated pipeline data (shown with an "E") are taken from data from the National Energy Board of Canada plus EIA estimates. LNG data: Industry reports.

Table 6. U.S. Natural Gas Exports, by Country, 1992-1998

(Volumes in Million Cubic Feet, Prices in Dollars per Thousand Cubic Feet)

Year and Month	Pipeline				LNG		Total	
	Canada		Mexico		Japan		Volume	Average Price
	Volume	Average Price	Volume	Average Price	Volume	Average Price		
1992 Total	67,777	1.83	95,973	1.90	52,532	3.43	216,282	2.25
1993 Total	44,518	2.14	39,676	2.02	55,989	3.34	140,183	2.59
1994 Total	52,556	2.42	46,500	1.68	62,682	3.18	161,738	2.50
1995 Total	27,554	1.96	61,283	1.50	65,283	3.41	154,119	2.39
1996								
January	7,044	3.13	1,607	1.98	5,534	3.38	14,186	3.10
February	5,207	2.71	2,000	1.82	5,621	3.35	12,828	2.85
March	6,616	2.79	2,860	1.81	5,642	3.55	15,118	2.88
April	2,430	2.21	1,924	1.69	5,654	3.57	10,008	2.88
May	2,809	2.15	1,899	1.84	3,750	3.61	8,458	2.73
June	3,001	2.25	3,486	2.16	5,651	3.65	12,138	2.87
July	3,777	2.45	3,062	2.24	7,546	3.66	14,385	3.04
August	2,197	2.30	9,176	2.11	5,663	3.67	17,036	2.65
September	2,514	1.94	2,389	1.73	5,663	3.73	10,566	2.85
October	4,311	1.97	1,990	1.85	5,589	3.84	11,889	2.83
November	6,776	2.77	1,533	2.56	5,670	4.01	13,979	3.25
December	5,222	3.67	1,914	3.72	5,665	3.73	12,801	3.70
Total	51,905	2.67	33,840	2.11	67,648	3.65	153,393	2.97
1997								
January	4,193	4.08	2,231	4.08	5,604	4.25	12,028	4.16
February	5,169	3.02	1,677	2.32	5,596	4.20	12,443	3.46
March	9,115	2.05	1,486	1.55	5,675	4.16	16,276	2.74
April	5,168	1.78	3,044	1.83	5,660	4.06	13,872	2.72
May	4,107	2.08	2,177	1.96	3,812	3.83	10,097	2.72
June	3,162	2.28	2,579	2.14	3,786	3.72	9,527	2.81
July	3,257	2.14	3,122	2.17	3,756	3.66	10,136	2.71
August	3,820	2.15	6,282	2.37	7,532	3.62	17,633	2.86
September	3,129	2.37	6,159	2.59	3,767	3.58	13,055	2.83
October	2,432	2.85	4,182	2.87	5,676	3.58	12,289	3.19
November	5,579	3.10	1,782	3.16	5,691	3.66	13,051	3.35
December	7,318	2.58	3,650	2.30	5,631	3.58	16,600	2.86
Total	56,447	2.52	38,372	2.46	62,187	3.83	157,006	3.02
1998								
January	5,056	2.53	4,257	2.11	7,446	3.67	16,759	2.93
February	4,474	2.14	3,119	2.06	3,726	3.42	11,319	2.54
March	7,818	2.25	4,204	2.14	7,435	3.09	19,457	2.55
April	4,409	2.47	2,676	2.22	5,702	2.81	12,787	2.57
May	2,083	2.28	6,123	2.12	1,891	2.70	10,097	2.26
June	3,404	1.73	5,618	1.98	5,695	2.69	14,717	2.20
July	2,533	2.05	3,853	2.20	5,681	2.70	12,067	2.40
August	1,241	1.92	5,292	2.55	5,676	2.70	12,209	2.55
September	2,250	1.94	2,892	1.81	7,584	2.69	12,726	2.36
October	^E 2,000	NA	^E 4,100	NA	5,679	NA	^E 11,779	NA
November	^E 4,500	NA	^E 4,000	NA	3,776	NA	^E 12,276	NA
December	^E 6,000	NA	^E 4,000	NA	5,662	NA	^E 15,662	NA
Total	^E45,768	NA	^E50,134	NA	65,953	NA	^E161,855	NA

^E Estimated Data.

NA Not Available.

Sources: 1992-1994: Energy Information Administration, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." January 1995

through the current month (except estimates): Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports*. Estimated pipeline data (shown with an "E") are taken from data from the National Energy Board of Canada plus EIA estimates. LNG data: Industry reports.

Table 7. Marketed Production of Natural Gas, by State, 1992-1998

(Million Cubic Feet)

Year and Month	Alabama ^b	Alaska	Arizona	California	Colorado	Florida	Kansas
1992 Total	355,099	443,597	771	365,632	323,041	6,657	658,007
1993 Total	388,024	430,350	597	315,851	400,985	7,085	686,347
1994 Total	515,272	555,402	752	309,427	453,207	7,486	712,730
1995 Total	519,661	469,550	558	279,555	523,084	6,463	721,436
1996							
January	45,653	44,655	41	20,714	48,619	518	62,976
February	42,668	40,433	42	22,910	45,504	493	62,683
March	45,334	43,738	45	24,686	47,843	460	63,027
April	43,868	39,694	36	23,988	45,293	456	60,858
May	45,160	36,348	39	24,091	46,893	483	62,194
June	43,319	37,334	45	23,281	45,212	503	56,318
July	43,257	37,272	30	24,495	45,570	500	57,095
August	43,873	37,239	43	24,547	51,269	540	55,144
September	42,834	38,039	31	23,826	45,437	537	55,563
October	42,200	41,204	34	24,261	50,245	468	57,589
November	45,395	40,706	37	24,493	49,824	517	58,460
December	47,278	44,166	40	25,203	50,363	531	60,890
Total	530,841	480,828	463	286,494	572,071	6,006	712,796
1997							
January	48,213	43,497	46	24,430	52,755	527	60,198
February	46,024	39,391	41	21,876	48,424	512	55,275
March	51,313	42,625	42	23,910	53,954	610	60,099
April	51,246	38,687	39	23,248	52,529	554	58,357
May	48,802	35,427	36	23,590	52,376	541	61,661
June	47,342	36,344	28	22,928	50,715	450	59,996
July	46,370	36,284	31	23,981	52,964	514	58,234
August	46,314	36,270	30	23,841	54,041	505	61,937
September	48,911	37,041	30	23,760	52,742	519	49,658
October	50,634	40,095	34	24,437	54,260	452	53,815
November	49,734	39,631	57	24,792	55,549	439	54,152
December	48,368	43,020	39	24,896	57,064	491	53,834
Total	583,272	468,311	452	285,690	637,375	6,114	687,215
1998							
January	32,739	43,715	43	24,810	53,025	479	^E 51,399
February	29,230	38,016	42	21,719	51,770	436	^E 48,969
March	33,505	41,026	53	22,869	56,834	466	^E 50,055
April	32,406	38,188	43	21,952	55,760	480	^E 49,045
May	33,656	35,200	38	23,889	56,151	512	^E 50,901
June	33,257	36,116	34	24,837	54,493	428	^E 48,050
July	33,696	36,501	42	27,152	56,370	504	^E 48,048
August	33,719	36,331	36	29,717	56,841	529	^E 48,172
September	30,466	^E 40,036	32	29,096	55,501	445	^E 43,509
October	33,344	^E 46,034	31	^E 30,768	58,862	470	^E 46,595
1998 YTD	326,019	^E 391,163	391	^E 256,809	555,607	4,748	^E 484,742
1997 YTD	485,170	385,660	357	236,002	524,761	5,184	579,229
1996 YTD	438,168	395,956	387	236,798	471,885	4,958	593,446

See footnotes at end of table.

Table 7. Marketed Production of Natural Gas, by State, 1992-1998

(Million Cubic Feet) — Continued

Year and Month	Louisiana ^b	Michigan	Mississippi	Montana	New Mexico	North Dakota	Oklahoma
1992 Total	4,914,300	194,815	91,697	53,867	1,268,863	54,883	2,017,356
1993 Total	4,991,138	204,635	80,695	54,528	1,409,429	59,851	2,049,942
1994 Total	5,169,705	222,657	63,448	50,416	1,557,689	57,805	1,934,864
1995 Total	5,108,366	238,203	95,533	50,264	1,625,837	49,468	1,811,734
1996							
January	437,274	21,912	8,089	4,503	135,594	4,276	143,693
February	412,611	18,686	7,386	4,266	126,370	3,880	139,115
March	446,371	11,208	8,385	4,443	138,091	4,164	131,701
April	436,014	32,072	8,225	4,098	132,572	4,122	147,949
May	451,148	18,021	9,026	4,244	138,946	4,273	149,425
June	434,668	23,572	8,983	3,496	131,778	3,990	143,675
July	449,052	27,119	9,335	3,603	125,193	4,047	146,451
August	449,461	23,261	9,193	4,050	126,967	4,096	148,463
September	431,768	20,208	8,641	4,172	122,040	4,185	143,302
October	421,252	20,374	8,996	4,668	123,570	4,246	150,322
November	427,566	16,081	8,487	4,521	124,377	4,216	146,828
December	443,563	13,227	8,518	4,933	128,590	4,178	143,965
Total	5,240,747	245,740	103,263	50,996	1,554,087	49,674	1,734,887
1997							
January	445,257	34,940	8,253	4,654	135,263	3,952	144,608
February	405,366	16,875	7,807	4,451	122,656	3,899	134,455
March	447,802	24,790	8,470	4,836	137,830	4,453	147,098
April	431,010	12,944	8,120	4,654	132,438	4,364	136,246
May	443,269	39,819	8,611	4,561	136,553	4,539	142,336
June	425,934	19,314	8,893	3,808	125,256	4,348	138,038
July	434,326	40,026	8,636	4,114	131,806	4,427	144,769
August	438,965	18,597	9,626	4,213	134,140	4,486	147,528
September	430,599	22,451	9,162	4,199	128,915	4,381	150,488
October	445,702	20,297	10,084	3,150	134,623	4,508	145,054
November	434,908	26,013	9,683	4,706	120,856	4,416	135,537
December	446,682	29,885	9,955	5,091	118,298	4,629	137,731
Total	5,229,821	305,950	107,300	52,437	1,558,633	52,401	1,703,888
1998							
January	^R 467,734	28,439	9,639	^E 5,058	142,312	4,623	145,522
February	^R 418,165	28,259	8,574	^E 4,668	142,383	4,020	134,651
March	^R 470,930	30,719	9,781	^E 5,018	141,671	4,337	142,541
April	^R 456,246	17,983	8,957	^E 4,714	140,963	4,284	134,885
May	^R 473,557	29,164	9,121	^E 4,672	140,258	4,488	142,725
June	^E 454,466	26,962	8,586	^E 3,805	^R 139,557	4,210	137,906
July	^E 454,506	26,188	9,258	^E 3,990	^R 138,859	4,384	140,664
August	^E 457,471	19,037	8,835	^E 4,242	^R 138,165	4,499	143,345
September	^E 438,628	^E 20,056	8,664	^E 4,332	^R 137,474	4,427	142,267
October	^E 462,358	^E 18,876	8,868	^E 4,346	136,786	4,600	140,146
1998 YTD	^E4,554,061	^E245,684	90,283	^E44,845	1,398,426	43,870	1,404,652
1997 YTD	4,348,230	250,052	87,662	42,640	1,319,479	43,356	1,430,620
1996 YTD	4,369,618	216,433	86,258	41,542	1,301,120	41,280	1,444,095

See footnotes at end of table.

Table 7. Marketed Production of Natural Gas, by State, 1992-1998

(Million Cubic Feet) — Continued

Year and Month	Oregon	Texas ^c	Utah	Wyoming	Other ^a States	U.S. Total
1992 Total	2,580	6,145,862	171,293	842,576	800,913	18,711,808
1993 Total	4,003	6,249,624	225,401	634,957	788,472	18,981,915
1994 Total	3,221	6,353,844	270,858	696,018	774,724	19,709,525
1995 Total	1,923	6,330,048	241,290	673,775	759,728	19,506,474
1996						
January	120	545,658	19,998	58,691	69,638	1,672,623
February	75	512,557	18,027	56,037	66,726	1,580,472
March	105	552,700	21,650	57,270	72,373	1,673,596
April	121	529,015	20,864	54,662	65,643	1,649,552
May	140	547,843	21,035	52,805	67,061	1,679,176
June	132	533,168	20,759	59,346	64,752	1,634,329
July	146	557,986	20,573	55,519	64,500	1,671,743
August	117	550,499	21,137	54,567	66,523	1,670,989
September	132	529,524	21,589	51,949	65,361	1,609,140
October	133	543,264	22,152	53,649	69,163	1,637,792
November	113	517,147	21,606	53,990	70,997	1,615,362
December	102	529,659	21,376	57,551	71,875	1,656,019
Total	1,439	6,449,022	250,767	666,036	814,612	19,750,793
1997						
January	105	554,934	21,782	59,016	66,837	1,709,269
February	98	506,768	19,115	55,848	59,897	1,548,774
March	101	564,269	21,912	61,159	64,286	1,719,559
April	102	539,499	19,570	64,278	61,118	1,639,002
May	102	552,230	22,053	62,726	62,301	1,701,532
June	97	529,765	19,815	59,667	59,069	1,611,809
July	98	546,610	21,711	60,324	58,493	1,673,719
August	99	548,267	21,024	61,091	59,686	1,670,660
September	86	525,836	22,007	64,678	56,803	1,632,265
October	97	540,150	23,006	64,992	62,912	1,678,302
November	91	519,274	22,840	62,181	60,863	1,625,720
December	96	526,271	22,307	62,410	64,414	1,655,481
Total	1,173	6,453,873	257,139	738,368	736,679	19,866,093
1998						
January	90	542,462	21,826	66,074	^E 61,837	^{RE} 1,701,826
February	79	491,530	21,758	53,970	^E 57,200	^{RE} 1,555,440
March	96	541,311	23,656	65,704	^E 61,188	^{RE} 1,701,760
April	92	525,602	23,513	61,974	^E 57,188	^{RE} 1,634,276
May	92	550,442	24,967	54,304	^E 58,146	^{RE} 1,692,283
June	90	527,613	23,968	63,574	^E 56,699	^{RE} 1,644,649
July	95	547,880	23,036	64,917	^E 55,998	^{RE} 1,672,087
August	94	561,133	23,681	66,273	^E 57,217	^{RE} 1,689,336
September	90	529,321	^E 24,586	63,370	^E 55,348	^{RE} 1,627,647
October	83	534,431	^E 24,573	62,709	^E 59,433	^E 1,673,313
1998 YTD	901	5,351,725	^E235,564	622,870	^E580,255	^E16,592,615
1997 YTD	986	5,408,329	211,993	613,778	611,402	16,584,892
1996 YTD	1,223	5,402,216	207,785	554,495	671,740	16,479,412

^a Includes Arkansas, Illinois, Indiana, Kentucky, Maryland, Missouri, Nebraska, Nevada, New York, Ohio, Pennsylvania, South Dakota, Tennessee, Virginia and West Virginia. The 1998 monthly values for these States are estimated.

^b All data for 1991 through 1996 include Federal Offshore production. For 1997 and 1998, data for Alabama exclude Federal Offshore production and data for Louisiana include both the Louisiana and Alabama portions of Federal Offshore production.

^c Federal offshore production volumes are included.

^R Revised Data.

^E Estimated Data.

^{RE} Revised Estimated Data.

Notes: Data for 1992 through 1997 are final. All other data are preliminary unless otherwise indicated. Totals may not equal sum of components because of independent rounding. See Appendix A, Explanatory Notes 1 and 3 for discussion of computation procedures and revision policy.

Sources: 1992-1997: Energy Information Administration (EIA), *Natural Gas Annual 1997*; 1998 through current month: Form EIA-895, "Monthly Quantity of Natural Gas Report," Minerals Management Service reports, and EIA computations.

Table 8. Gross Withdrawals and Marketed Production of Natural Gas by State, October 1998

(Million Cubic Feet)

State	Gross Withdrawals			Repressuring	Nonhydrocarbon Gases Removed ^a	Vented and Flared	Marketed Production
	From Gas Wells	From Oil Wells	Total				
Alabama	36,232	680	36,912	1,077	2,407	84	33,344
Alaska	^E 18,527	^E 316,865	^E 335,392	^E 288,320	0	^E 1,037	^E 46,034
Arizona	29	1	31	0	0	NA	31
California	^E 7,572	^E 28,946	^E 36,518	^E 5,496	^E 171	^E 83	^E 30,768
Colorado	51,712	7,919	59,631	677	0	92	58,862
Florida	0	531	531	0	61	0	470
Kansas	^E 42,983	^E 3,738	^E 46,721	^E 79	0	^E 47	^E 46,595
Louisiana	^E 406,872	^E 61,165	^E 468,037	^E 3,671	^E 0	^E 2,008	^E 462,358
Michigan	^E 15,363	^E 3,841	^E 19,204	^E 135	0	^E 192	^E 18,876
Mississippi	10,280	533	10,812	993	716	234	8,868
Montana	^E 3,845	^E 674	^E 4,519	^E 5	0	^E 167	^E 4,346
New Mexico	129,117	22,382	151,499	922	13,544	246	136,786
North Dakota	1,448	3,492	4,940	0	5	334	4,600
Oklahoma	127,543	12,603	140,146	0	0	0	140,146
Oregon	99	0	99	4	12	0	83
Texas	473,859	114,660	588,519	38,086	13,526	2,476	534,431
Utah	^E 23,218	^E 3,827	^E 27,045	^E 46	0	^E 2,426	^E 24,573
Wyoming	96,471	5,274	101,745	12,327	13,346	13,363	62,709
Other States	^E 56,285	^E 3,966	^E 60,251	^E 162	^E 514	^E 142	^E 59,433
Total	^E1,501,455	^E591,096	^E2,092,551	^E352,002	^E44,303	^E22,933	^E1,673,313

^a See Appendix A, Explanatory Note 1, for a discussion of data on Nonhydrocarbon Gases Removed.

^E Estimated Data.

NA Not Available.

Notes: All monthly data are considered preliminary until publication of the

Natural Gas Annual for that year. Totals may not equal sum of components because of independent rounding. See Appendix A, Explanatory Notes 1 and 3 for discussion of computation procedures and revision policy.

Sources: Form EIA-895, "Monthly Quantity of Natural Gas Report."

Table 9. Underground Natural Gas Storage - All Operators, 1993-1999

(Volumes in Billion Cubic Feet)

Year and Month	Natural Gas in Underground Storage at End of Period			Change In Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total ^b	Volume	Percent	Injections	Withdrawals	Net Withdrawals ^c
1993 Total^a	4,327	2,322	6,649	-275	-10.6	2,760	2,717	-43
1994 Total^a	4,360	2,606	6,966	284	12.2	2,796	2,508	-288
1995 Total^a	4,349	2,153	6,503	-453	3.1	2,566	2,974	408
1996 Total^a	4,341	2,173	6,513	19	0.9	2,906	2,911	6
1997								
January	4,347	1,496	5,843	32	2.3	68	753	684
February	4,342	1,139	5,481	118	11.6	55	413	358
March	4,345	990	5,336	232	30.7	131	285	155
April	4,342	1,051	5,393	196	23.1	205	146	-59
May	4,340	1,365	5,704	202	17.5	362	41	-321
June	4,357	1,731	6,088	202	13.2	407	42	-365
July	4,356	2,017	6,372	119	6.3	361	78	-282
August	4,357	2,338	6,695	93	4.2	378	56	-322
September	4,360	2,672	7,033	67	2.6	380	44	-336
October	4,358	2,886	7,244	75	2.7	294	84	-210
November	4,359	2,699	7,058	150	5.9	113	302	189
December	4,350	2,175	6,525	2	0.1	45	579	533
Total	—	—	—	—	—	2,800	2,824	24
1998								
January	^R 4,347	^R 1,713	^R 6,060	^R 218	^R 14.5	68	^R 535	466
February	^R 4,341	^R 1,419	^R 5,760	^R 280	^R 24.6	74	373	^R 300
March	^R 4,342	^R 1,185	^R 5,527	^R 194	^R 19.6	136	^R 378	^R 242
April	^R 4,339	^R 1,382	^R 5,721	^R 331	^R 31.5	277	78	^R 199
May	^R 4,340	^R 1,775	^R 6,115	^R 410	^R 30.0	435	42	-393
June	^R 4,346	^R 2,103	^R 6,448	^R 372	^R 21.5	375	52	-323
July	^R 4,340	^R 2,417	^R 6,757	^R 401	^R 19.9	366	52	-314
August	^R 4,336	^R 2,697	^R 7,033	^R 359	^R 15.4	^R 342	58	-283
September	^R 4,340	^R 2,949	^R 7,289	^R 277	^R 10.4	305	78	-227
October	^R 4,342	^R 3,176	^R 7,517	^R 290	^R 10.0	301	46	-255
November	4,340	3,143	7,483	444	16.5	131	165	34
December	4,326	2,718	7,044	543	25.0	94	530	435
Total	—	—	—	—	—	^R 2,905	^R 2,386	^R 518
1999								
January(STIFS)	^{RE} 4,326	^{RE} 2,068	^{RE} 6,394	^{RE} 355	^{RE} 20.7	NA	NA	^E 650
February(STIFS)	^E 4,326	^E 1,678	^E 6,004	259	18.2	NA	NA	390

^a Total as of December 31.^b Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1991 - 7,993; 1992 - 7,932; 1993 - 7,989; 1994 - 8,043; 1995 - 7,927; 1996 - 8,159; and 1997 - 8,128.^c Negative numbers indicate the volume of injections in excess of withdrawals. Positive numbers indicate the volume of withdrawals in excess of injections.^R Revised Data.^E Estimated Data.^{RE} Revised Estimated Data.

NA Not Available.

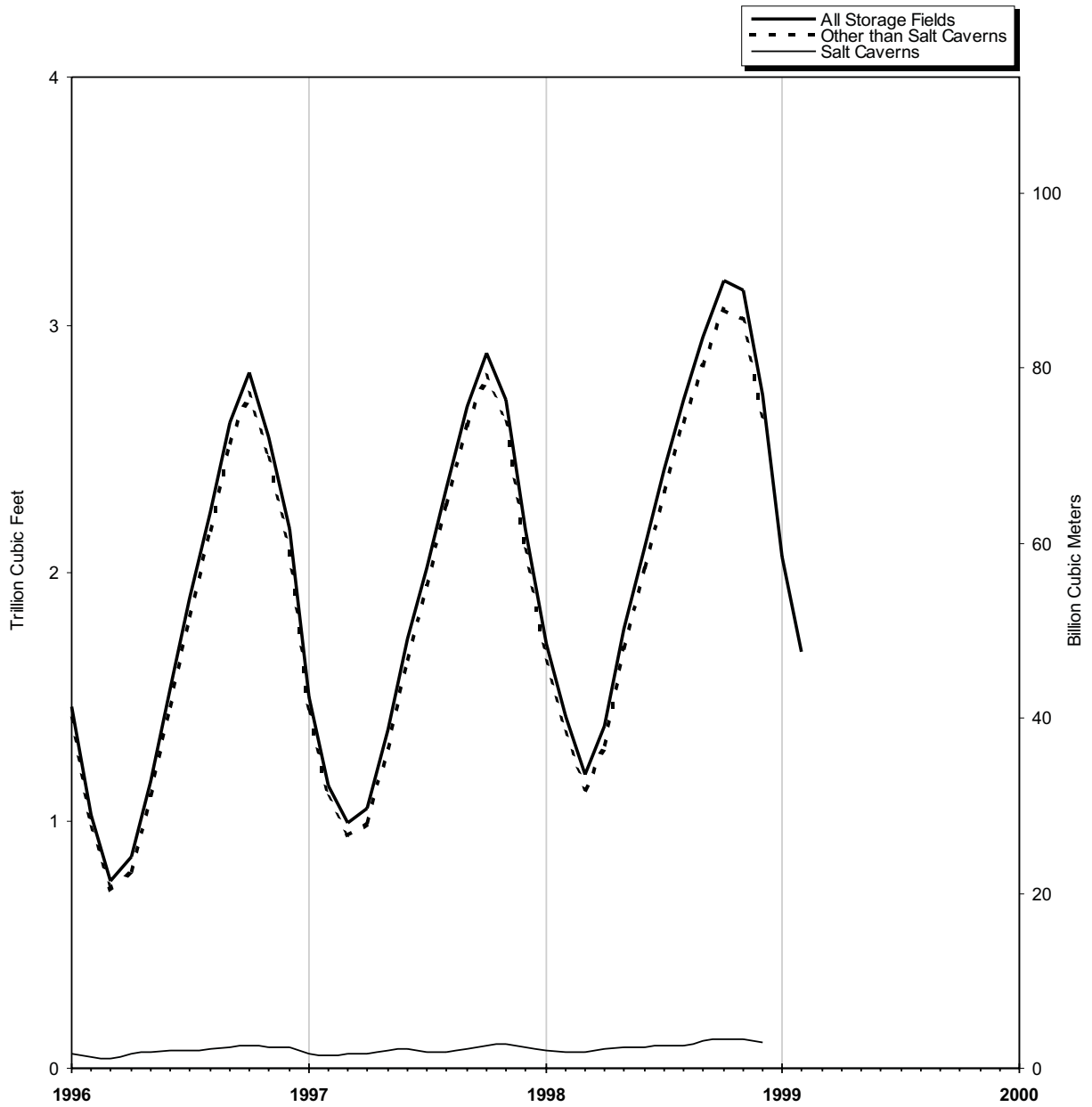
— Not Applicable.

Notes: Data for 1993 through 1997 are final. All other data are

preliminary unless otherwise noted. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of revision policy. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. New storage operations with total base gas of 3 billion cubic feet are included beginning January 1998.

Sources: Form EIA-191, "Monthly Underground Gas Storage Report," "Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," and STIFS.

Figure 5. Working Gas in Underground Natural Gas Storage in the U.S., 1996-1999



Sources: Energy Information Administration, Form EIA-191, "Monthly Underground Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 10. Underground Natural Gas Storage - by Season, 1996-1999

(Volumes in Billion Cubic Feet)

Year, Season and Month	Natural Gas in Underground Storage at End of Period			Change In Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals	Net Withdrawals ^a
March 1996	4,290	758	5,048	--	--	--	--	--
1996 Refill Season								
April	4,312	854	5,166	-525	-38.1	227	112	-115
May	4,332	1,161	5,493	-507	-30.4	373	45	-328
June	4,341	1,529	5,870	-485	-24.1	410	35	-375
July	4,336	1,898	6,234	-404	-17.5	418	49	-370
August	4,332	2,245	6,577	-250	-10.0	400	54	-346
September	4,338	2,605	6,943	-197	-7.0	398	32	-366
October	4,335	2,810	7,145	-186	-6.2	276	73	-203
Total	—	—	—	—	—	2,502	401	-2,102
1996-1997 Heating Season								
November	4,339	2,549	6,889	-179	-6.6	90	354	264
December	4,341	2,173	6,513	19	0.9	86	461	374
January	4,347	1,496	5,843	32	2.3	68	753	684
February	4,342	1,139	5,481	118	11.6	55	413	358
March	4,345	990	5,336	232	30.7	131	285	155
Total	—	—	—	—	—	430	2,266	1,835
1997 Refill Season								
April	4,342	1,051	5,393	196	23.1	205	146	-59
May	4,340	1,365	5,704	202	17.5	362	41	-321
June	4,357	1,731	6,088	202	13.2	407	42	-365
July	4,356	2,017	6,372	119	6.3	361	78	-282
August	4,357	2,338	6,695	93	4.2	378	56	-322
September	4,360	2,672	7,033	67	2.6	380	44	-336
October	4,358	2,886	7,244	75	2.7	294	84	-210
Total	—	—	—	—	—	2,388	492	-1,896
1997-1998 Heating Season								
November	4,359	2,699	7,058	150	5.9	113	302	189
December	4,350	2,175	6,525	2	0.1	45	579	533
January	^R 4,347	^R 1,713	^R 6,060	^R 218	^R 14.5	68	^R 535	466
February	^R 4,341	^R 1,419	^R 5,760	^R 280	^R 24.6	74	373	^R 300
March	^R 4,342	^R 1,185	^R 5,527	^R 194	^R 19.6	136	^R 378	^R 242
Total	—	—	—	—	—	436	^R 2,167	^R 1,730
1998 Refill Season								
April	^R 4,339	^R 1,382	^R 5,721	^R 331	^R 31.5	277	78	^R -199
May	^R 4,340	^R 1,775	^R 6,115	^R 410	^R 30.0	435	42	-393
June	^R 4,346	^R 2,103	^R 6,448	^R 372	^R 21.5	375	52	-323
July	^R 4,340	^R 2,417	^R 6,757	^R 401	^R 19.9	366	52	-314
August	^R 4,336	^R 2,697	^R 7,033	^R 359	^R 15.4	^R 342	58	-283
September	^R 4,340	^R 2,949	^R 7,289	^R 277	^R 10.4	305	78	-227
October	^R 4,342	^R 3,176	^R 7,517	^R 290	^R 10.0	301	46	-255
Total	—	—	—	—	—	^R 2,402	^R 407	^R -1,995
1998-1999 Heating Season								
November	4,340	3,143	7,483	444	16.5	131	165	34
December	4,326	2,718	7,044	543	25.0	94	530	435
January(STIFS)	^{RE} 4,326	^{RE} 2,068	^{RE} 6,394	^{RE} 355	^{RE} 20.7	NA	NA	^E 650
February(STIFS)	^E 4,326	^E 1,678	^E 6,004	259	18.2	NA	NA	390

^a Negative numbers indicate the volume of injections in excess of withdrawals. Positive numbers indicate the volume of withdrawals in excess of injections.

^R Revised Data.

^E Estimated Data.

^{RE} Revised Estimated Data.

NA Not Available.

— Not Applicable.

Notes: Data for 1996 and 1997 are final. All other data are preliminary unless otherwise noted. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of revision policy. Gas in storage at the end of a

subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. In January 1998, 3 billion cubic feet were added to base gas for three new respondents. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withdrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Underground Natural Gas Storage Report," Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," and STIFS.

Table 11. Underground Natural Gas Storage - Salt Cavern Storage Fields, 1994 - 1998
(Volumes in Billion Cubic Feet)

Year and Month	Natural Gas in Salt Cavern Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals	Net Withdrawals
1994 Total^c	44	70	113	—	—	142	123	-19
1995 Total^c	60	72	131	2	2.9	194	200	5
1996								
January	63	59	122	-14	-19.3	23	41	17
February	63	48	111	-17	-26.2	23	33	10
March	63	38	101	-21	-35.2	21	32	11
April	63	57	120	-9	-13.7	30	10	-20
May	63	62	126	-11	-15.1	19	13	-6
June	63	71	135	-7	-8.9	21	12	-9
July	60	71	131	-5	-6.7	20	14	-6
August	60	76	136	13	20.5	21	16	-5
September	60	85	145	4	5.0	23	13	-9
October	60	88	148	0	0.4	17	14	-3
November	64	87	151	3	4.0	16	20	5
December	64	85	149	14	18.8	25	28	2
Total	64	85	149	14	18.8	258	246	-13
1997								
January	65	57	122	-2	-3.1	21	51	30
February	59	49	109	2	4.0	15	23	8
March	65	56	121	18	47.3	22	16	-6
April	65	58	123	1	1.8	22	19	-2
May	65	73	138	10	17.3	27	13	-14
June	66	80	145	8	11.7	22	16	-7
July	65	66	131	-6	-7.5	15	30	15
August	65	67	132	-11	-12.4	23	22	0
September	65	78	143	-9	-8.7	27	14	-12
October	66	93	159	4	5.6	30	14	-16
November	67	95	162	7	9.4	25	24	-2
December	67	83	150	-4	-3.0	19	31	12
Total	—	—	—	—	—	267	274	6
1998								
January	66	70	136	13	^R 23.0	17	31	14
February	65	^R 68	^R 133	18	^R 36.4	17	21	3
March	68	64	132	8	^R 14.6	23	^R 29	6
April	68	80	148	22	^R 38.1	29	11	-17
May	68	83	^R 151	^R 10	^R 13.0	26	22	-3
June	66	83	149	3	^R 4.3	21	23	2
July	66	^R 92	^R 158	26	^R 39.6	26	18	-8
August	^R 66	93	^R 159	^R 27	^R 40.0	24	21	^R -3
September	67	112	^R 180	^R 35	^R 44.9	22	30	^R 8
October	67	^R 116	^R 183	^R 23	^R 24.4	44	12	-32
November	67	119	187	24	25.5	22	17	-5
December	67	104	171	22	26.4	17	32	14
Total	—	—	—	—	—	288	267	-21

^c Total as of December 31.

^R Revised Data.

— Not Applicable.

Notes: Data for 1996 and 1997 are final. All other data are preliminary unless otherwise noted. See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of the reporting of underground storage information. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in

base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withdrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Monthly Underground Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 12. Underground Natural Gas Storage - Storage Fields Other than Salt Caverns, 1994-1998

(Volumes in Billion Cubic Feet)

Year and Month	Natural Gas in Non-Salt Cavern Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals	Net Withdrawals
1994 Total^c	4,317	2,536	6,853	—	—	2,654	2,385	-269
1995 Total^c	4,290	2,082	6,371	-455	-17.9	2,372	2,774	403
1996								
January	4,291	1,404	5,695	-569	-28.8	26	708	682
February	4,286	973	5,259	-504	-34.1	73	510	437
March	4,228	720	4,948	-553	-43.4	59	371	312
April	4,249	797	5,046	-516	-39.3	197	102	-95
May	4,268	1,099	5,367	-496	-31.1	354	32	-322
June	4,277	1,458	5,735	-478	-24.7	390	23	-366
July	4,276	1,827	6,103	-399	-17.9	398	34	-363
August	4,272	2,169	6,441	-263	-10.8	380	39	-341
September	4,277	2,520	6,797	-201	-7.4	376	19	-357
October	4,275	2,722	6,997	-186	-6.4	259	59	-200
November	4,275	2,462	6,737	-183	-6.9	75	333	259
December	4,277	2,087	6,364	6	0.3	61	433	372
Total	4,277	2,087	6,364	6	0.3	2,647	2,665	18
1997								
January	4,282	1,439	5,721	34	2.5	47	702	654
February	4,283	1,090	5,372	116	12.0	40	390	350
March	4,280	935	5,215	214	29.8	109	269	160
April	4,277	993	5,270	195	24.6	184	127	-56
May	4,275	1,292	5,566	191	17.6	335	28	-307
June	4,291	1,651	5,942	194	13.3	385	26	-358
July	4,290	1,951	6,241	124	6.8	346	49	-297
August	4,291	2,271	6,563	103	4.7	356	34	-322
September	4,295	2,595	6,890	75	3.0	353	29	-324
October	4,292	2,793	7,085	70	2.6	265	70	-195
November	4,292	2,604	6,896	142	5.8	88	278	191
December	4,283	2,092	6,375	4	0.2	27	548	521
Total	—	—	—	—	—	2,533	2,551	18
1998								
January	^R 4,281	^R 1,643	^R 5,923	^R 204	^R 14.2	51	504	453
February	^R 4,275	^R 1,352	^R 5,627	^R 262	^R 24.0	56	^R 353	296
March	^R 4,274	^R 1,121	^R 5,394	^R 186	^R 19.9	113	349	236
April	^R 4,271	^R 1,302	^R 5,573	^R 309	^R 31.1	248	67	-181
May	^R 4,272	^R 1,692	^R 5,964	^R 400	^R 31.0	^R 410	20	-390
June	^R 4,279	^R 2,020	^R 6,299	^R 368	22.3	354	29	-325
July	^R 4,274	^R 2,326	^R 6,600	^R 375	^R 19.2	340	34	-306
August	^R 4,270	^R 2,604	^R 6,875	^R 333	^R 14.7	^R 318	37	-281
September	^R 4,273	^R 2,837	^R 7,109	^R 242	^R 9.3	^R 284	48	^R -236
October	^R 4,274	^R 3,060	^R 7,334	^R 267	^R 9.6	257	34	-223
November	4,272	3,024	7,296	420	16.1	108	147	39
December	4,259	2,614	6,873	522	24.9	77	498	421
Total	—	—	—	—	—	2,617	2,120	-497

^c Total as of December 31.

^R Revised Data.

— Not Applicable.

Notes: Data for 1996 and 1997 are final. All other data are preliminary unless otherwise noted. See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of the reporting of underground storage information. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in

base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withdrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Monthly Underground Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 13. Net Withdrawals from Underground Storage, by State, 1996-1998
(Volumes in Million Cubic Feet)

State	1998						
	Total	December	November	October	September	August	July
Alabama	-447	139	-1	-613	401	-200	9
Arkansas	-1,774	1,245	63	-580	-817	-1,005	-1,034
California	-44,006	29,749	-10,022	-23,926	-9,990	-7,283	-9,435
Colorado	-4,885	7,416	-1,764	-2,043	-5,919	-5,877	-4,060
Illinois	-11,545	26,858	9,641	-27,923	-28,122	-31,634	-25,062
Indiana	1,424	4,038	-618	-2,904	-4,534	-3,695	-2,476
Iowa	-3,131	20,547	-68	-7,108	-12,149	-12,102	-11,525
Kansas	-20,440	14,055	3,658	-8,737	-9,284	-12,200	-13,108
Kentucky	-12,142	10,397	1,776	-5,237	-8,821	-4,533	-10,622
Louisiana	-70,560	38,892	1,326	-30,831	-9,708	-20,159	-25,597
Maryland	237	2,068	124	-1,267	-783	-1,407	-2,924
Michigan	-77,044	60,725	18,548	-27,089	-31,023	-52,128	-60,857
Minnesota	442	438	-84	-187	-275	-214	-289
Mississippi	-8,781	5,256	701	-9,800	156	-4,139	-5,961
Missouri	174	573	-204	-208	-414	-203	8
Montana	-401	3,962	2,606	-1,532	-4,239	-4,524	-2,295
Nebraska	298	1,215	536	-363	-864	-616	-796
New Mexico	-6,247	-619	-1,243	-1,903	-1,185	-208	-191
New York	-10,575	6,448	1,054	-4,464	-5,640	-5,247	-8,108
Ohio	-26,542	35,311	7,921	-12,746	-19,259	-27,246	-31,220
Oklahoma	-34,004	40,863	-473	-19,520	-12,146	-7,189	-7,554
Oregon	829	1,888	28	4	-818	-819	-852
Pennsylvania	-30,915	46,400	30	-20,091	-27,252	-19,657	-31,998
Tennessee	-60	131	0	-103	-102	-112	-134
Texas	-108,737	36,143	-3,908	-34,137	-5,040	-18,629	-18,872
Utah	-16,395	8,751	2,231	-3,879	-8,260	-7,385	-7,265
Virginia	-709	359	0	-229	-272	-341	-190
Washington	-509	3,226	-730	719	-1,822	-3,640	-312
West Virginia	-28,894	26,188	3,337	-7,094	-16,425	-29,075	-28,560
Wyoming	-2,837	2,621	-614	-1,425	-2,602	-2,008	-2,807
AGA Regions							
Producing	-250,543	135,835	124	-105,507	-38,023	-63,530	-72,318
Eastern Consuming	-199,871	241,397	42,077	^R -117,437	^R -155,259	^R -188,197	^R -214,455
Western Consuming	-67,763	58,052	-8,349	-32,268	-33,925	-31,751	-27,316
Total	-518,177	435,284	33,852	^R-255,212	^R-227,207	^R-283,478	^R-314,088

See footnotes at end of table.

Table 13. Net Withdrawals from Underground Storage, by State, 1996-1998

(Volumes in Million Cubic Feet) — Continued

State	1998						1997
	June	May	April	March	February	January	Total
Alabama	-623	-144	-245	248	187	396	-162
Arkansas	-1,100	-1,046	-471	1,039	875	1,057	250
California	-27,493	-29,210	-10,710	-2,257	26,766	29,805	16,340
Colorado	-3,907	-6,040	3,534	3,928	6,337	3,510	-525
Illinois	-31,348	-25,967	-293	28,186	36,082	58,036	-10,153
Indiana	-575	-446	917	4,249	3,322	4,144	984
Iowa	-8,405	-3,600	348	6,692	5,335	18,905	-6,255
Kansas	-6,267	-19,324	-6,954	14,438	8,180	15,103	-11,372
Kentucky	-8,137	-11,793	-2,480	7,768	9,981	9,559	3,013
Louisiana	-14,635	-22,794	-21,191	7,400	5,164	21,574	-9,248
Maryland	-1,251	-808	-1,127	1,631	2,745	3,236	-544
Michigan	-69,589	-69,296	-31,779	55,388	45,886	84,170	-3,388
Minnesota	-169	0	159	416	203	444	-373
Mississippi	-2,887	-3,438	-2,757	2,405	4,251	7,431	3,763
Missouri	143	-460	48	423	10	458	-453
Montana	-2,024	-2,571	224	3,017	2,554	4,421	11,962
Nebraska	-528	-860	754	1,090	355	376	-1,590
New Mexico	-180	-1,120	287	658	-130	-412	2,065
New York	-8,786	-11,267	-3,673	7,977	9,548	11,582	304
Ohio	-25,882	-35,968	-14,906	28,619	34,023	34,810	-7,336
Oklahoma	-12,460	-23,277	-21,343	7,159	737	21,199	-9,482
Oregon	-1,411	0	81	934	1,253	540	-1,316
Pennsylvania	-34,236	-57,800	-32,842	38,957	49,786	57,788	28,381
Tennessee	0	0	0	83	60	116	0
Texas	-20,145	-27,286	-40,395	-9,062	-3,341	35,935	10,035
Utah	-8,225	-7,364	-596	1,199	6,783	7,613	-7,571
Virginia	-309	-313	-209	312	437	46	0
Washington	-2,963	-3,932	1,544	3,329	4,131	-58	-1,003
West Virginia	-26,404	-26,003	-14,607	22,818	36,285	30,647	16,716
Wyoming	-3,406	-1,344	89	2,611	2,059	3,990	908
AGA Regions							
Producing	-57,675	-98,285	-92,824	24,038	15,735	101,887	-13,990
Eastern Consuming	^R -215,931	^R -244,724	^R -100,092	^R 204,441	^R 234,042	^R 314,267	19,518
Western Consuming	-49,599	-50,461	-5,674	13,177	50,086	50,266	18,423
Total	^R-323,205	^R-393,470	^R-198,591	^R241,655	^R299,863	^R466,420	23,950

See footnotes at end of table.

Table 13. Net Withdrawals from Underground Storage, by State, 1996-1998

(Volumes in Million Cubic Feet) — Continued

State	1997						
	December	November	October	September	August	July	June
Alabama	243	243	-251	-262	-286	-43	-93
Arkansas	1,526	651	271	-1,048	-1,234	-1,472	-1,340
California	58,418	2,846	-11,717	-6,637	-7,805	-11,213	-22,886
Colorado	5,026	2,503	359	-5,203	-4,559	-5,592	-5,293
Illinois	44,906	2,805	-28,399	-35,655	-35,387	-32,161	-27,571
Indiana	4,193	-879	-3,088	-4,559	-3,722	-3,299	-1,913
Iowa	17,041	505	-8,412	-12,825	-11,001	-8,818	-8,375
Kansas	12,277	8,384	-7,782	-13,351	-11,129	-3,488	-11,777
Kentucky	10,773	4,035	-2,926	-7,983	-6,520	-7,430	-8,997
Louisiana	43,644	20,997	-24,035	-29,291	-15,446	-11,847	-19,809
Maryland	1,298	33	-2,346	-2,838	-2,353	-1,536	-1,700
Michigan	78,027	53,016	-32,466	-65,209	-73,230	-75,558	-73,547
Minnesota	4	4	0	-130	-142	-321	-312
Mississippi	8,484	1,089	-2,126	-5,224	-3,109	741	-3,797
Missouri	228	-207	-215	-240	-379	-433	-112
Montana	3,169	2,760	1,015	-1,490	-2,339	-2,710	-1,633
Nebraska	944	124	-69	-1,099	-971	-76	-803
New Mexico	2,500	25	-1,305	-853	-328	587	-534
New York	10,735	4,857	-2,211	-6,455	-11,606	-11,663	-11,184
Ohio	40,530	15,502	-8,809	-23,499	-32,174	-34,224	-37,483
Oklahoma	25,362	13,995	-19,663	-14,556	-8,393	-811	-7,984
Oregon	1,036	-262	-97	-410	-1,178	-1,301	-1,681
Pennsylvania	53,825	26,061	-15,914	-48,745	-44,878	-42,074	-50,051
Tennessee	0	0	0	0	0	0	0
Texas	53,619	18,531	-30,600	-21,731	-12,881	10,561	-20,379
Utah	13,169	2,721	-1,301	-3,235	-5,284	-8,117	-7,950
Virginia	0	0	0	0	0	0	0
Washington	3,159	83	702	-2,268	982	-495	-3,766
West Virginia	36,318	6,615	-8,145	-19,091	-24,119	-26,183	-31,856
Wyoming	3,019	1,906	-591	-2,454	-2,727	-3,411	-2,304
AGA Regions							
Producing	147,412	63,672	-85,240	-86,054	-52,520	-5,729	-65,620
Eastern Consuming	299,061	112,710	-113,251	-228,461	-246,626	-243,499	-253,685
Western Consuming	87,001	12,560	-11,630	-21,826	-23,050	-33,161	-45,825
Total	533,474	188,941	-210,121	-336,341	-322,196	-282,389	-365,130

See footnotes at end of table.

Table 13. Net Withdrawals from Underground Storage, by State, 1996-1998

(Volumes in Million Cubic Feet) — Continued

State	1997					1996	
	May	April	March	February	January	Total	December
Alabama	-271	-130	-25	184	531	-1,224	761
Arkansas	-608	178	342	1,006	1,978	64	644
California	-23,687	-18,968	-289	19,814	38,462	51,292	14,985
Colorado	-5,375	5,441	2,020	4,766	5,382	-1,004	2,923
Illinois	-23,526	-636	22,821	39,383	63,269	-15,109	35,109
Indiana	-110	1,444	2,537	2,954	7,425	-1,801	3,290
Iowa	-3,470	1,634	2,966	8,497	16,003	-1,229	18,020
Kansas	-9,463	-1,497	4,053	8,989	13,411	12,118	12,290
Kentucky	-7,828	-363	4,141	8,048	18,062	-7,530	8,039
Louisiana	-19,573	-3,990	-18,885	20,943	48,043	10,964	32,273
Maryland	-1,632	114	1,896	2,653	5,867	24	958
Michigan	-46,757	-14,032	53,634	71,586	121,150	-31,671	83,640
Minnesota	-273	-40	177	109	551	-30	218
Mississippi	-5,573	449	-2,294	2,905	12,216	-12,758	4,658
Missouri	-1,200	56	1,174	-252	1,126	-48	76
Montana	-846	1,810	2,591	3,983	5,651	11,725	5,512
Nebraska	-714	-47	-245	502	865	-1,489	1,108
New Mexico	-1,228	583	501	1,527	591	5,338	-823
New York	-7,589	-1,623	9,239	10,141	17,664	-13,367	8,151
Ohio	-34,205	-1,447	21,559	28,161	58,753	-10,844	35,138
Oklahoma	-18,407	-7,180	-8,168	8,115	28,208	22,961	20,970
Oregon	-1,300	543	919	1,076	1,340	783	1,240
Pennsylvania	-43,897	-3,188	50,395	52,423	94,422	-59,533	25,003
Tennessee	0	0	0	0	0	0	0
Texas	-28,071	-17,396	-21,279	24,835	54,826	63,869	24,153
Utah	-4,255	-2,150	-2,620	2,520	8,931	12,955	9,164
Virginia	0	0	0	0	0	0	0
Washington	-5,881	-71	3,200	1,784	1,566	2,067	1,746
West Virginia	-24,165	1,674	23,270	28,818	53,582	-35,844	21,644
Wyoming	-1,127	137	1,090	2,995	4,376	5,056	3,529
AGA Regions							
Producing	-82,922	-28,852	-45,732	68,321	159,274	102,555	94,165
Eastern Consuming	-195,364	-16,545	193,362	253,097	458,719	-179,663	240,936
Western Consuming	-42,743	-13,297	7,088	37,049	66,259	82,844	39,316
Total	-321,030	-58,694	154,718	358,466	684,252	5,735	374,417

^R Revised Data.

Notes: This table contains total net withdrawals for each State with natural gas storage facilities. Positive numbers indicate the volume of withdrawals in excess of injections. Negative values indicate the volume of injections in excess of withdrawals. Data through 1997 are final. All other data are preliminary at this time and are not considered final until publication of the *Natural Gas Annual* for that year. The American Gas Association (AGA) publishes weekly estimates of working gas levels in underground storage by

region. AGA defines the Producing Region as Texas, Oklahoma, Kansas, New Mexico, Louisiana, Arkansas, and Mississippi; the Eastern Consuming Region as all States east of the Mississippi River less Mississippi, plus Iowa, Nebraska and Missouri; the Western Consuming Region as all States west of the Mississippi River less the Producing Region and Iowa, Nebraska and Missouri.

Source: Form EIA-191, "Monthly Underground Gas Storage Report."

**Table 14. Activities of Underground Natural Gas Storage Operators, by State,
December 1998**

(Volumes in Million Cubic Feet)

State	Total Storage Capacity	Natural Gas in Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity	
		Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals
Alabama	3,280	1,190	1,615	2,805	91	6.0	0	139
Arkansas	24,191	7,460	7,495	14,955	1,961	35.4	109	1,354
California	396,430	248,033	169,861	417,893	43,982	34.9	1,973	31,722
Colorado	99,600	48,139	34,949	83,089	5,332	18.0	1,136	8,553
Illinois	898,565	649,968	210,336	860,304	-4,615	-2.1	18,073	44,931
Indiana	113,210	73,877	31,531	105,408	1,025	3.4	549	4,587
Iowa	271,200	200,700	45,242	245,942	2,027	4.7	992	21,538
Kansas	304,066	190,195	94,256	284,450	21,275	29.2	5,072	19,127
Kentucky	219,908	109,121	93,115	202,236	11,756	14.5	1,377	11,773
Louisiana	559,013	265,912	223,170	489,082	80,967	56.9	15,259	54,151
Maryland	62,000	46,677	12,840	59,517	-237	-1.8	514	2,582
Michigan	992,934	419,815	519,068	938,883	75,981	17.1	5,709	66,435
Minnesota	7,000	4,623	1,931	6,554	-442	-18.6	0	438
Mississippi	134,012	77,279	51,146	128,424	9,814	23.7	2,666	7,922
Missouri	31,274	21,600	9,272	30,872	-174	-1.8	42	615
Montana	342,785	167,364	46,527	213,891	462	1.0	598	4,559
Nebraska	39,469	31,507	3,219	34,726	-275	-7.9	92	1,308
New Mexico	96,600	27,306	9,259	36,565	3,740	67.8	2,305	1,686
New York	175,479	103,063	67,456	170,519	11,017	19.5	1,143	7,591
Ohio	573,434	352,680	153,879	506,559	26,553	20.9	4,236	39,548
Oklahoma	396,087	217,663	128,644	346,306	49,333	62.2	5,998	46,861
Oregon	11,623	7,064	8,631	15,695	2,645	44.2	222	2,111
Pennsylvania	684,842	354,692	317,579	672,271	43,713	16.0	6,625	53,025
Tennessee	1,200	340	787	1,127	787	0.0	0	131
Texas	683,891	253,462	255,172	508,634	107,565	72.9	13,798	49,941
Utah	121,980	64,601	38,060	102,661	13,560	55.3	151	8,903
Virginia	4,669	2,434	1,897	4,331	1,897	0.0	90	449
Washington	37,300	22,096	11,198	33,294	367	3.4	2,281	5,507
West Virginia	734,158	296,487	148,577	445,064	30,285	25.6	3,150	29,338
Wyoming	105,869	60,782	21,224	82,006	3,019	16.6	146	2,767
AGA Regions								
Producing	2,197,859	1,039,277	769,140	1,808,417	274,655	55.5	45,207	181,042
Eastern Consuming	4,805,622	2,664,151	1,616,412	4,280,563	199,832	13.9	42,593	283,990
Western Consuming	1,122,586	622,703	332,381	955,084	68,926	26.2	6,507	64,559
Total	8,126,067	4,326,131	2,717,933	7,044,064	543,413	25.0	94,307	529,591

Notes: Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. The American Gas Association (AGA) publishes weekly estimates of working

gas levels in underground storage by region. AGA defines the Producing Region as Texas, Oklahoma, Kansas, New Mexico, Louisiana, Arkansas, and Mississippi; the Eastern Consuming Region as all States east of the Mississippi River less Mississippi, plus Iowa, Nebraska and Missouri; the Western Consuming Region as all States west of the Mississippi River less the Producing Region and Iowa, Nebraska and Missouri.

Source: Form EIA-191, "Monthly Underground Gas Storage Report."

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1996-1998

(Million Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998		
				November	October	September
Alabama	42,121	40,554	49,858	2,493	1,324	1,196
Alaska	13,434	12,984	13,998	1,858	1,346	818
Arizona	31,191	26,293	23,659	1,990	1,122	932
Arkansas	30,839	36,058	40,003	2,957	1,366	1,067
California	481,065	410,418	410,405	40,193	26,155	22,034
Colorado	NA	98,120	95,110	8,454	4,185	2,690
Connecticut	31,214	34,585	37,922	3,259	1,532	937
Delaware	6,909	7,759	8,555	575	232	177
District of Columbia	11,648	13,386	14,885	1,084	457	338
Florida	13,854	11,280	14,711	935	718	626
Georgia	91,463	94,492	108,488	9,306	4,268	2,851
Hawaii	506	472	496	40	40	41
Idaho	13,541	12,868	12,717	1,507	656	316
Illinois	341,423	427,512	457,827	43,854	21,530	10,513
Indiana	NA	143,225	153,852	NA	NA	NA
Iowa	58,401	69,645	73,940	6,343	3,029	1,435
Kansas	64,664	59,091	70,988	6,968	2,457	1,562
Kentucky	46,529	54,858	60,055	6,142	2,239	1,167
Louisiana	NA	44,750	50,454	2,678	NA	1,703
Maine	NA	867	846	NA	62	27
Maryland	NA	66,369	74,107	6,554	NA	NA
Massachusetts	NA	96,632	100,418	NA	4,257	NA
Michigan	275,279	329,802	346,798	29,476	15,851	7,533
Minnesota	91,909	111,438	120,167	12,214	5,328	2,683
Mississippi	NA	23,271	26,481	1,833	NA	^R 711
Missouri	96,544	108,584	116,685	8,075	3,345	2,619
Montana	NA	17,795	18,889	2,079	1,272	484
Nebraska	35,743	41,317	41,705	2,667	1,632	885
Nevada	25,688	21,358	19,221	2,526	1,367	824
New Hampshire	NA	6,005	6,157	597	^R 294	159
New Jersey	NA	185,791	192,637	NA	NA	NA
New Mexico	28,325	28,406	28,027	3,545	1,169	840
New York	NA	327,568	NA	NA	NA	NA
North Carolina	44,640	43,692	50,204	4,022	1,205	963
North Dakota	8,835	9,948	10,697	1,036	484	202
Ohio	NA	304,190	322,345	29,741	^R 16,127	5,905
Oklahoma	57,725	60,738	65,331	4,327	1,780	1,494
Oregon	NA	27,838	28,036	3,150	1,431	760
Pennsylvania	NA	224,786	241,918	19,152	10,155	NA
Rhode Island	NA	15,653	16,489	1,408	645	436
South Carolina	22,458	21,058	25,070	1,754	606	491
South Dakota	9,980	11,469	11,842	1,157	533	248
Tennessee	NA	52,619	60,246	4,525	1,492	1,172
Texas	172,247	197,578	195,366	13,025	7,370	5,930
Utah	46,905	47,732	46,141	5,808	4,463	1,913
Vermont	2,166	2,285	2,221	213	102	114
Virginia	54,040	61,778	65,268	5,980	2,478	1,443
Washington	NA	50,407	52,885	NA	NA	NA
West Virginia	NA	29,979	32,224	NA	1,302	NA
Wisconsin	98,143	116,774	126,608	11,803	6,382	3,190
Wyoming	NA	10,663	11,790	NA	745	^R 388
Total	3,852,435	4,252,742	4,503,692	385,260	^R197,296	^R119,847

See footnotes at end of table.

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1996-1998
(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	1,183	1,202	1,386	2,335	4,610	7,480
Alaska	648	479	628	933	1,239	1,529
Arizona	894	1,062	1,375	2,092	3,694	5,323
Arkansas	1,058	1,146	1,171	1,731	2,270	6,069
California	21,621	25,147	33,207	38,118	54,072	62,006
Colorado	2,480	NA	1,592	7,546	11,118	15,570
Connecticut	848	1,028	1,195	1,878	3,638	5,051
Delaware	165	197	252	450	846	1,248
District of Columbia	327	371	435	636	1,195	2,032
Florida	639	707	817	1,017	1,631	2,044
Georgia	2,814	2,956	3,186	3,558	8,015	16,312
Hawaii	41	45	47	47	49	49
Idaho	292	402	666	904	1,560	2,032
Illinois	10,437	9,497	11,529	14,790	33,014	54,697
Indiana	NA	NA	3,291	5,270	NA	23,358
Iowa	1,453	1,622	1,435	2,807	5,821	10,634
Kansas	1,613	1,783	2,155	3,803	7,378	11,857
Kentucky	1,104	1,321	1,360	1,961	3,937	8,164
Louisiana	1,574	1,774	1,814	2,310	3,736	7,184
Maine	25	22	31	45	92	120
Maryland	1,854	1,828	2,087	2,992	5,696	9,577
Massachusetts	2,347	2,842	NA	NA	10,697	14,514
Michigan	6,740	7,275	9,771	13,888	31,736	47,397
Minnesota	2,465	2,537	2,735	3,836	7,148	16,337
Mississippi	R705	714	796	1,231	2,243	NA
Missouri	2,185	2,670	3,128	4,980	10,435	17,763
Montana	488	481	1,086	NA	1,676	2,429
Nebraska	1,036	1,014	1,199	1,961	4,324	6,482
Nevada	813	977	1,487	1,884	2,826	3,809
New Hampshire	NA	169	238	378	697	845
New Jersey	4,528	4,845	5,736	11,735	17,514	26,429
New Mexico	845	822	284	1,270	2,589	4,740
New York	7,468	15,038	NA	NA	30,102	42,752
North Carolina	905	1,044	1,192	2,243	5,018	7,535
North Dakota	208	235	292	490	953	1,464
Ohio	7,246	NA	8,509	11,550	24,861	44,211
Oklahoma	1,430	1,633	1,855	3,094	5,854	10,832
Oregon	679	944	1,641	2,135	NA	NA
Pennsylvania	NA	5,283	6,505	9,880	NA	32,526
Rhode Island	438	462	622	1,001	NA	2,402
South Carolina	463	474	562	1,071	2,421	4,006
South Dakota	227	274	302	512	1,127	1,738
Tennessee	1,111	1,186	1,410	2,674	5,170	9,938
Texas	5,810	R6,077	6,125	9,148	15,463	28,005
Utah	1,332	1,264	1,958	2,243	4,853	6,482
Vermont	57	56	77	118	266	340
Virginia	1,064	1,425	1,737	2,509	5,172	9,618
Washington	NA	NA	NA	NA	NA	NA
West Virginia	NA	NA	NA	NA	2,785	4,553
Wisconsin	R2,768	2,415	3,470	4,080	9,198	17,130
Wyoming	R298	NA	503	704	1,182	1,566
Total	R115,039	R130,062	152,469	220,029	406,751	639,059

See footnotes at end of table.

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	9,222	9,689	48,496	7,942	3,977	1,440
Alaska	1,716	2,240	15,146	2,162	1,684	1,569
Arizona	5,604	7,103	31,057	4,764	1,973	1,053
Arkansas	6,668	5,336	42,428	6,369	4,013	1,345
California	76,210	82,302	478,904	68,486	39,940	24,538
Colorado	16,176	18,860	115,583	17,463	10,147	4,290
Connecticut	5,585	6,263	40,562	5,977	3,672	1,629
Delaware	1,360	1,408	8,972	1,213	671	252
District of Columbia	2,365	2,409	15,807	2,421	1,414	553
Florida	2,251	2,470	13,117	1,837	1,074	681
Georgia	18,031	20,167	114,383	19,892	16,495	6,693
Hawaii	52	55	517	45	42	39
Idaho	2,232	2,975	15,239	2,371	1,427	638
Illinois	53,146	78,417	497,230	69,718	56,299	29,455
Indiana	20,668	26,868	169,140	25,914	17,338	7,954
Iowa	10,261	13,560	81,696	12,051	8,606	4,048
Kansas	11,594	13,494	69,415	10,323	8,236	2,153
Kentucky	8,515	10,618	66,033	11,175	8,091	3,063
Louisiana	7,953	9,311	52,709	7,960	4,176	2,016
Maine	124	153	1,009	142	107	66
Maryland	11,052	12,609	77,500	11,130	7,894	3,543
Massachusetts	15,644	16,948	112,308	15,677	10,149	4,784
Michigan	48,977	56,636	379,838	50,037	37,942	17,853
Minnesota	15,023	21,603	128,873	17,435	15,098	6,504
Mississippi	4,564	NA	27,626	4,355	2,561	902
Missouri	18,966	22,378	127,625	19,041	12,090	3,656
Montana	2,404	3,418	21,002	3,207	2,038	1,234
Nebraska	6,642	7,902	47,105	5,787	4,399	1,382
Nevada	4,149	5,025	25,243	3,884	1,925	1,024
New Hampshire	1,010	1,140	6,939	933	616	327
New Jersey	29,313	30,800	216,925	31,134	20,208	9,250
New Mexico	4,337	7,884	36,623	8,217	4,095	1,217
New York	46,717	53,322	375,641	48,074	34,936	17,385
North Carolina	9,710	10,803	52,894	9,202	4,875	1,438
North Dakota	1,561	1,910	11,370	1,423	1,133	434
Ohio	43,910	50,527	354,543	50,352	36,474	19,056
Oklahoma	11,652	13,774	71,762	11,025	6,186	1,968
Oregon	4,581	6,117	32,522	4,684	2,713	1,536
Pennsylvania	34,714	31,526	262,494	37,709	26,561	12,927
Rhode Island	2,720	2,781	18,162	2,509	1,464	659
South Carolina	5,177	5,432	25,741	4,683	2,424	637
South Dakota	1,666	2,196	13,203	1,734	1,339	537
Tennessee	9,546	NA	64,130	11,511	6,602	1,829
Texas	34,096	41,199	234,988	37,410	21,561	9,175
Utah	8,193	8,396	58,108	10,376	6,018	4,299
Vermont	397	427	2,631	345	214	118
Virginia	11,067	11,546	73,905	12,127	7,452	2,989
Washington	NA	NA	61,813	11,405	7,594	3,623
West Virginia	4,906	5,039	35,996	6,017	4,061	1,737
Wisconsin	15,618	22,087	135,819	19,045	16,127	8,106
Wyoming	1,560	NA	12,999	2,337	1,179	617
Total	683,127	803,496	4,983,772	731,030	497,310	234,223

See footnotes at end of table.

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1996-1998
(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	1,254	1,242	1,397	1,609	2,648	3,191
Alaska	743	418	463	508	789	1,177
Arizona	1,124	907	1,015	1,150	1,566	2,251
Arkansas	948	917	1,027	1,239	2,322	3,290
California	21,448	20,643	26,444	23,226	28,268	38,704
Colorado	2,714	2,590	2,965	4,130	8,492	10,975
Connecticut	1,014	914	961	1,398	2,362	4,435
Delaware	184	179	195	320	560	948
District of Columbia	393	372	419	562	944	1,316
Florida	631	670	709	773	852	914
Georgia	3,158	2,930	3,180	3,341	3,816	8,183
Hawaii	40	41	43	41	42	41
Idaho	320	294	345	433	938	1,463
Illinois	11,690	10,102	10,370	11,606	26,059	41,167
Indiana	3,467	2,968	2,832	4,924	9,417	15,114
Iowa	1,646	1,479	1,599	2,107	3,939	7,015
Kansas	1,485	1,469	1,688	1,506	3,266	5,839
Kentucky	1,451	1,073	1,499	1,575	2,959	4,893
Louisiana	1,710	1,716	1,746	2,108	2,866	3,648
Maine	30	26	21	34	56	85
Maryland	2,067	1,799	1,906	2,677	4,215	6,912
Massachusetts	2,557	2,484	2,834	4,374	6,937	12,131
Michigan	8,775	7,269	4,751	12,017	26,982	38,297
Minnesota	2,542	2,234	2,385	3,180	6,467	11,143
Mississippi	778	761	815	926	1,472	1,916
Missouri	2,623	2,401	2,714	3,660	6,460	10,993
Montana	510	449	413	634	1,147	2,003
Nebraska	936	939	1,015	1,376	3,176	4,353
Nevada	805	781	891	985	1,401	2,027
New Hampshire	165	155	160	263	465	744
New Jersey	5,397	4,726	5,214	6,599	11,505	20,284
New Mexico	836	849	820	239	1,965	1,513
New York	9,878	10,267	9,719	14,469	24,082	37,597
North Carolina	934	898	1,072	1,596	2,986	4,080
North Dakota	191	168	190	295	688	1,133
Ohio	7,124	6,112	7,425	14,630	21,260	32,544
Oklahoma	1,549	1,521	1,680	2,107	3,860	6,164
Oregon	829	758	881	1,069	1,883	3,130
Pennsylvania	6,214	5,236	5,254	7,510	15,416	25,082
Rhode Island	473	443	480	727	1,171	1,994
South Carolina	471	449	517	709	1,243	1,794
South Dakota	261	233	248	368	784	1,250
Tennessee	1,182	1,075	1,115	1,652	3,007	4,776
Texas	7,140	6,789	7,599	8,451	11,595	15,606
Utah	1,957	1,466	1,502	1,602	1,821	4,876
Vermont	59	52	57	97	189	283
Virginia	1,630	1,467	1,589	2,042	4,201	6,622
Washington	2,002	1,791	1,995	2,451	4,487	3,680
West Virginia	776	598	492	952	2,223	3,386
Wisconsin	2,957	2,535	2,862	2,948	7,413	11,047
Wyoming	320	245	295	397	1,080	1,062
Total	129,388	117,900	127,805	163,591	283,739	433,073

^R Revised Data.

^{NA} Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and

revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1996-1998

(Million Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998		
				November	October	September
Alabama	25,629	28,616	25,877	1,676	1,228	1,053
Alaska	20,481	23,761	24,079	2,331	2,012	1,396
Arizona	28,378	26,751	25,727	2,343	1,902	1,730
Arkansas	NA	25,452	27,130	3,070	2,435	2,129
California	284,165	226,945	210,233	30,954	26,720	26,660
Colorado	NA	59,357	59,886	5,059	3,413	2,714
Connecticut	37,481	36,823	34,884	3,256	2,686	2,039
Delaware	4,998	5,763	5,873	446	243	179
District of Columbia	15,432	15,638	14,022	1,209	883	837
Florida	34,871	32,981	37,980	2,852	2,656	2,501
Georgia	50,037	49,192	53,915	4,110	3,073	2,612
Hawaii	1,934	1,586	1,956	173	162	171
Idaho	10,076	9,776	9,885	1,047	581	388
Illinois	151,851	175,774	185,629	17,234	10,112	7,349
Indiana	NA	71,064	75,077	NA	NA	NA
Iowa	38,301	42,983	46,061	4,257	2,406	1,194
Kansas	39,331	35,704	48,042	3,672	1,705	1,438
Kentucky	28,958	32,473	35,080	3,368	1,705	1,143
Louisiana	NA	22,541	23,311	2,174	NA	1,829
Maine	NA	2,338	2,256	NA	165	78
Maryland	49,522	43,265	40,410	3,487	^R 3,296	^R 2,827
Massachusetts	NA	94,290	84,435	NA	5,288	NA
Michigan	144,134	166,401	175,268	15,353	8,819	5,790
Minnesota	71,410	79,914	83,527	8,931	5,382	2,747
Mississippi	NA	19,136	19,892	2,182	NA	^R 1,445
Missouri	54,714	60,283	62,598	4,410	2,395	2,195
Montana	NA	11,897	12,699	1,262	789	407
Nebraska	24,304	30,399	35,801	1,935	1,018	935
Nevada	20,521	19,378	18,004	1,822	1,288	1,090
New Hampshire	NA	6,479	6,204	323	^R 371	222
New Jersey	NA	145,599	131,598	NA	NA	NA
New Mexico	26,212	26,512	22,913	2,533	1,410	1,242
New York	NA	286,157	NA	NA	NA	NA
North Carolina	33,768	32,513	35,306	2,870	1,867	1,678
North Dakota	8,899	9,531	10,424	1,042	^R 558	^R 329
Ohio	NA	158,746	163,668	14,908	NA	4,919
Oklahoma	39,440	39,037	40,137	2,911	1,813	1,756
Oregon	NA	22,113	22,002	2,689	1,296	1,028
Pennsylvania	NA	124,352	132,309	11,849	6,876	4,436
Rhode Island	NA	10,890	11,009	996	613	472
South Carolina	17,946	16,922	17,881	1,531	1,148	1,055
South Dakota	7,969	9,111	9,786	914	363	269
Tennessee	NA	47,179	50,899	4,239	2,688	2,527
Texas	208,362	192,009	160,496	18,725	14,888	26,113
Utah	25,949	25,977	25,324	3,182	2,078	1,026
Vermont	2,579	2,648	2,477	276	165	125
Virginia	52,588	52,662	51,773	5,371	3,304	2,561
Washington	NA	40,020	41,516	NA	NA	NA
West Virginia	NA	22,527	24,625	2,667	1,933	1,622
Wisconsin	71,305	76,256	80,448	8,101	4,339	4,937
Wyoming	NA	9,678	7,973	NA	461	324
Total	2,696,274	2,807,402	2,749,079	262,160	^R176,995	^R158,848

See footnotes at end of table.

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1996-1998
(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	981	1,030	1,118	3,768	2,713	3,522
Alaska	1,208	1,190	1,274	1,684	1,911	2,251
Arizona	1,721	1,890	2,073	2,495	3,013	3,548
Arkansas	2,218	2,253	NA	1,432	1,728	3,843
California	30,322	27,131	18,132	22,410	23,269	19,321
Colorado	2,329	NA	3,415	4,768	6,738	9,008
Connecticut	2,178	2,456	2,151	2,124	4,294	4,999
Delaware	176	190	226	320	556	829
District of Columbia	847	871	913	1,085	1,830	2,032
Florida	2,575	2,630	2,748	3,112	3,701	3,961
Georgia	2,649	2,757	2,725	3,248	4,882	7,391
Hawaii	187	169	181	169	174	172
Idaho	381	407	537	689	1,077	1,423
Illinois	6,672	5,951	6,702	6,961	15,326	22,556
Indiana	NA	NA	NA	3,258	NA	11,063
Iowa	1,199	1,353	1,237	1,566	3,605	7,584
Kansas	1,836	1,914	1,722	2,093	3,381	8,014
Kentucky	1,134	1,061	1,195	1,505	2,490	4,636
Louisiana	1,913	1,799	NA	1,629	2,048	5,056
Maine	74	75	90	122	255	332
Maryland	^R 3,079	^R 2,927	^R 3,155	^R 3,514	^R 4,885	^R 7,125
Massachusetts	3,407	4,054	5,209	5,789	8,771	11,570
Michigan	5,841	5,301	6,297	8,530	15,784	22,837
Minnesota	2,311	2,026	3,003	3,208	5,685	11,726
Mississippi	^R 1,304	1,371	1,298	1,339	1,789	2,866
Missouri	3,039	2,210	2,352	2,978	5,545	8,978
Montana	405	400	839	NA	1,029	1,527
Nebraska	848	1,070	856	1,690	2,786	4,027
Nevada	1,052	1,304	1,587	1,876	2,207	2,642
New Hampshire	NA	228	NA	375	710	869
New Jersey	6,079	6,385	6,873	10,233	11,748	19,826
New Mexico	1,214	1,174	1,096	1,832	2,727	3,814
New York	15,604	12,007	13,919	NA	20,716	NA
North Carolina	1,650	1,502	1,658	2,053	3,326	4,879
North Dakota	354	285	312	507	953	1,372
Ohio	4,070	NA	5,165	7,134	13,211	21,443
Oklahoma	1,812	1,837	1,826	2,291	4,018	6,347
Oregon	905	1,047	1,428	1,618	NA	NA
Pennsylvania	NA	4,607	4,906	6,114	NA	17,790
Rhode Island	195	484	495	680	NA	1,492
South Carolina	1,019	1,013	1,063	1,209	1,732	2,440
South Dakota	263	283	285	539	806	1,335
Tennessee	2,366	2,507	2,646	2,993	4,714	7,027
Texas	25,614	18,195	11,161	13,616	14,839	20,104
Utah	840	845	1,154	1,510	2,749	3,787
Vermont	100	102	110	116	281	381
Virginia	1,971	2,739	2,682	3,672	5,338	7,878
Washington	NA	NA	NA	NA	NA	NA
West Virginia	1,575	5,166	NA	1,709	2,235	3,146
Wisconsin	3,410	3,063	3,471	3,801	6,632	11,019
Wyoming	232	NA	409	545	861	1,128
Total	^R161,189	^R153,496	^R143,746	^R176,212	^R255,241	^R369,806

See footnotes at end of table.

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1996-1998
(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	4,010	4,529	32,362	3,743	2,437	1,903
Alaska	2,340	2,883	26,908	3,147	2,658	2,574
Arizona	3,534	4,129	30,284	3,381	2,269	1,751
Arkansas	4,075	4,781	29,443	3,989	2,713	1,347
California	28,787	30,457	256,044	26,978	21,157	19,602
Colorado	9,159	10,507	69,088	9,717	6,177	2,558
Connecticut	5,540	5,757	42,680	5,801	3,854	2,512
Delaware	899	935	6,610	845	513	286
District of Columbia	2,382	2,542	18,018	2,374	1,354	899
Florida	3,984	4,152	36,765	3,719	3,112	2,621
Georgia	8,120	8,471	57,227	8,027	6,140	3,554
Hawaii	179	196	1,751	165	37	152
Idaho	1,570	1,977	11,469	1,657	982	585
Illinois	22,455	30,533	202,871	27,076	22,863	12,292
Indiana	10,460	12,876	81,813	10,689	8,637	4,518
Iowa	5,962	7,938	50,194	7,208	5,707	3,037
Kansas	6,177	7,378	41,238	5,532	3,673	1,936
Kentucky	5,053	5,668	38,632	6,154	4,176	2,417
Louisiana	4,998	4,511	25,629	3,073	2,048	1,414
Maine	342	422	2,713	375	289	176
Maryland	^R 7,365	^R 7,862	49,859	6,536	4,962	2,839
Massachusetts	12,943	13,716	105,818	11,523	8,546	6,898
Michigan	23,664	25,919	192,300	25,857	19,047	9,791
Minnesota	11,133	15,257	92,263	12,318	10,721	5,179
Mississippi	3,310	3,264	22,073	2,934	2,028	1,224
Missouri	9,467	11,144	69,869	9,547	6,192	2,741
Montana	1,459	2,178	13,926	2,014	1,306	797
Nebraska	4,237	4,903	33,853	3,454	2,812	1,855
Nevada	2,575	3,078	22,024	2,580	1,806	1,276
New Hampshire	1,051	1,167	7,489	1,010	703	411
New Jersey	18,713	20,200	168,761	23,161	16,022	8,454
New Mexico	3,839	5,330	31,501	4,831	2,949	1,384
New York	NA	NA	321,447	34,705	27,141	21,151
North Carolina	5,791	6,495	38,021	5,508	3,434	1,908
North Dakota	1,434	1,753	10,875	1,339	1,129	559
Ohio	23,991	27,046	184,103	25,092	17,752	9,727
Oklahoma	6,859	7,969	45,195	6,049	3,675	2,064
Oregon	3,308	3,889	25,500	3,352	2,023	1,367
Pennsylvania	19,674	21,571	144,134	19,731	14,064	9,348
Rhode Island	1,620	1,786	12,306	1,413	1,212	637
South Carolina	2,781	2,955	19,561	2,638	1,757	1,167
South Dakota	1,292	1,621	10,426	1,311	1,021	549
Tennessee	6,063	NA	55,130	7,939	5,015	2,653
Texas	20,826	24,280	216,347	24,323	19,327	14,189
Utah	4,235	4,544	31,257	5,152	3,187	2,020
Vermont	436	487	3,051	403	282	184
Virginia	8,398	8,673	61,932	9,233	5,543	3,397
Washington	NA	NA	46,802	6,666	7,903	2,660
West Virginia	3,310	3,564	25,918	3,386	2,809	1,500
Wisconsin	9,845	12,688	88,783	12,473	10,180	5,408
Wyoming	1,288	NA	10,767	1,077	967	555
Total	^R390,718	^R447,865	3,223,030	411,204	306,311	190,027

See footnotes at end of table.

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	2,075	2,622	2,947	1,642	1,901	2,089
Alaska	1,594	1,340	1,404	1,428	1,813	2,225
Arizona	1,836	1,767	1,936	1,973	2,138	2,559
Arkansas	1,129	1,128	1,127	1,214	1,647	2,166
California	18,459	18,696	17,911	16,438	18,750	20,672
Colorado	2,372	2,118	2,354	2,955	4,847	6,434
Connecticut	1,566	1,762	2,145	2,237	2,658	4,075
Delaware	245	186	209	285	427	638
District of Columbia	852	853	783	951	1,373	1,739
Florida	2,495	2,589	2,516	2,851	2,837	2,950
Georgia	2,719	2,597	2,677	2,776	3,192	4,136
Hawaii	148	143	156	152	148	155
Idaho	411	356	373	399	686	1,041
Illinois	6,426	5,809	5,970	6,052	10,472	16,533
Indiana	2,175	2,070	1,943	3,992	6,203	6,471
Iowa	1,359	1,114	1,305	1,238	2,382	3,878
Kansas	1,567	1,999	2,452	1,549	2,113	3,188
Kentucky	1,249	948	1,157	1,166	1,863	2,878
Louisiana	1,353	1,307	1,474	1,530	1,616	1,933
Maine	91	78	72	92	152	231
Maryland	2,283	2,070	2,237	2,315	2,744	4,240
Massachusetts	5,365	5,635	5,442	7,023	6,215	9,133
Michigan	5,997	5,688	2,213	7,417	12,843	18,737
Minnesota	2,408	2,369	2,343	2,801	4,949	8,161
Mississippi	924	1,309	1,206	1,174	1,306	1,533
Missouri	2,195	2,063	2,169	2,459	3,556	5,761
Montana	425	385	365	453	718	1,349
Nebraska	1,477	2,295	4,067	1,309	2,093	2,520
Nevada	1,198	1,151	1,103	1,416	1,700	1,906
New Hampshire	249	217	216	286	472	739
New Jersey	7,142	6,699	7,213	8,127	11,571	16,399
New Mexico	1,206	1,185	1,166	1,093	2,065	2,170
New York	17,307	18,574	21,119	20,942	21,767	28,346
North Carolina	1,713	1,592	1,513	1,741	2,260	2,909
North Dakota	317	264	141	315	590	1,062
Ohio	4,948	4,355	4,100	8,641	11,246	15,105
Oklahoma	1,764	1,733	1,732	1,570	2,622	3,668
Oregon	1,026	915	1,011	1,071	1,579	2,312
Pennsylvania	5,000	4,248	4,661	5,408	9,952	12,750
Rhode Island	460	399	431	537	892	1,144
South Carolina	1,884	1,004	990	1,096	1,268	1,202
South Dakota	334	249	246	283	603	940
Tennessee	2,078	1,921	1,944	2,350	3,155	4,177
Texas	14,479	14,856	16,420	13,384	14,126	15,195
Utah	1,124	943	927	945	1,268	2,675
Vermont	108	80	80	108	160	296
Virginia	2,334	2,476	2,395	2,700	4,304	5,671
Washington	2,041	1,625	1,831	2,240	3,161	3,196
West Virginia	1,106	1,137	927	1,093	1,599	2,116
Wisconsin	2,738	2,806	2,631	2,712	5,242	6,917
Wyoming	316	287	624	491	959	1,190
Total	142,068	140,017	144,372	154,422	204,203	269,510

^R Revised Data.^{NA} Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. Gas volumes delivered for use as vehicle fuel are included in the annual total but not in the monthly components. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. In 1996, consumption of

natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1996-1998

(Million Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998		
				November	October	September
Alabama	184,373	182,190	184,398	15,118	16,251	15,399
Alaska	NA	66,749	68,582	NA	NA	NA
Arizona	25,600	25,186	24,443	2,384	2,522	2,078
Arkansas	131,194	134,674	128,748	10,647	11,070	11,836
California	665,235	673,232	631,921	60,200	61,870	65,490
Colorado	NA	66,743	75,779	5,399	4,683	4,230
Connecticut	29,641	31,116	29,438	2,641	2,571	2,417
Delaware	14,615	13,207	13,016	1,415	1,412	1,182
District of Columbia	0	0	0	0	0	0
Florida	127,797	119,659	125,562	11,473	10,774	11,553
Georgia	138,531	161,179	165,842	13,015	11,895	8,274
Hawaii	0	0	0	0	0	0
Idaho ^a	31,631	31,841	31,686	2,799	2,712	2,701
Illinois	277,186	286,861	286,473	28,080	25,507	21,840
Indiana	NA	263,075	263,333	NA	NA	NA
Iowa	101,110	96,913	103,040	9,960	9,295	7,469
Kansas	103,537	100,406	100,922	13,258	9,086	7,312
Kentucky	83,415	86,504	84,835	7,950	7,705	6,695
Louisiana	NA	919,862	961,567	71,246	NA	84,209
Maine	NA	2,307	2,019	NA	224	190
Maryland	34,112	52,419	45,066	2,959	^R 3,635	^R 3,040
Massachusetts	NA	99,311	90,763	8,152	8,006	NA
Michigan	274,558	305,339	314,289	25,540	22,636	18,483
Minnesota	90,442	97,206	92,569	9,226	8,990	4,187
Mississippi	NA	76,405	74,384	6,278	NA	7,663
Missouri	58,992	64,322	65,023	4,744	5,194	4,581
Montana	15,776	16,646	16,119	1,563	1,400	1,206
Nebraska	33,987	39,354	32,436	2,918	2,673	786
Nevada	25,546	26,595	29,747	2,730	2,836	1,793
New Hampshire	NA	5,362	4,512	NA	NA	476
New Jersey	NA	184,083	173,704	NA	NA	NA
New Mexico	36,503	37,325	20,684	3,439	3,627	3,805
New York	NA	278,699	291,287	NA	NA	NA
North Carolina	105,558	101,683	94,711	9,456	9,423	8,986
North Dakota	19,072	18,604	6,987	1,712	^R 1,110	^R 1,655
Ohio	NA	304,069	314,038	28,292	NA	24,368
Oklahoma	178,972	189,984	181,829	12,518	17,337	19,543
Oregon	NA	80,652	79,256	8,625	8,988	8,452
Pennsylvania	210,433	216,253	222,410	18,945	18,082	17,892
Rhode Island	NA	22,294	23,276	2,165	2,196	1,963
South Carolina	95,637	93,703	86,847	9,092	8,837	8,475
South Dakota	4,853	6,322	6,467	470	294	411
Tennessee	NA	126,102	114,281	12,705	13,618	12,499
Texas	NA	1,888,796	1,956,772	187,889	NA	151,722
Utah	41,536	39,670	38,519	3,533	3,432	3,192
Vermont	1,903	2,099	1,761	181	179	154
Virginia	83,634	77,137	74,575	6,148	7,333	8,135
Washington	NA	98,904	104,477	NA	NA	NA
West Virginia	NA	52,178	45,554	NA	2,618	NA
Wisconsin	128,043	140,523	134,061	12,952	11,321	10,713
Wyoming	NA	42,870	45,606	4,510	4,318	3,897
Total	7,719,417	8,046,615	8,063,617	720,364	^R693,490	^R664,641

See footnotes at end of table.

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	17,248	16,167	16,737	17,308	17,013	18,208
Alaska	NA	6,542	6,251	5,854	6,455	6,878
Arizona	2,508	2,307	2,034	2,313	2,281	2,413
Arkansas	11,799	11,321	11,102	11,839	12,765	13,363
California	64,310	59,188	53,880	66,080	55,492	47,185
Colorado	NA	NA	NA	5,649	6,278	6,323
Connecticut	2,455	2,271	2,225	2,546	2,782	3,183
Delaware	1,221	1,097	1,160	1,256	1,348	1,477
District of Columbia	0	0	0	0	0	0
Florida	10,827	11,384	11,469	11,765	11,608	12,960
Georgia	13,484	12,768	13,149	12,501	12,866	13,434
Hawaii	0	0	0	0	0	0
Idaho ^a	2,530	2,620	2,672	2,593	3,047	3,130
Illinois	20,413	20,256	20,738	22,462	26,752	29,211
Indiana	NA	NA	23,465	23,136	NA	27,772
Iowa	7,741	7,647	^R 7,613	8,097	10,660	11,792
Kansas	^R 10,155	^R 11,454	9,583	8,483	8,011	8,686
Kentucky	6,702	6,738	6,787	7,022	7,543	8,884
Louisiana	85,378	80,693	73,666	75,577	77,970	81,959
Maine	179	153	184	168	122	159
Maryland	^R 3,017	^R 2,988	^R 2,935	^R 3,002	^R 3,094	^R 3,607
Massachusetts	8,134	7,812	NA	7,635	8,209	8,759
Michigan	17,707	18,191	22,705	25,012	26,873	32,052
Minnesota	8,677	7,803	^R 7,855	6,901	8,548	9,039
Mississippi	NA	NA	NA	NA	NA	NA
Missouri	4,658	4,672	4,646	4,830	5,473	6,788
Montana	1,126	1,215	1,687	1,244	1,521	1,481
Nebraska	4,050	5,853	3,076	2,662	2,543	3,043
Nevada	2,739	2,458	2,337	2,455	2,453	2,174
New Hampshire	NA	438	431	473	457	468
New Jersey	15,840	15,601	14,727	15,723	16,455	17,152
New Mexico	3,556	3,536	3,179	3,131	3,190	2,891
New York	NA	NA	21,404	NA	22,542	26,423
North Carolina	9,283	8,561	9,042	9,439	9,366	10,846
North Dakota	^R 1,625	^R 1,522	^R 1,794	^R 1,961	^R 1,853	^R 1,924
Ohio	23,492	NA	24,008	25,977	29,362	32,257
Oklahoma	18,236	16,672	16,280	13,793	14,388	16,578
Oregon	6,988	NA	6,767	7,015	NA	NA
Pennsylvania	17,882	17,111	17,926	18,161	19,808	21,699
Rhode Island	2,126	2,121	2,042	NA	2,078	2,117
South Carolina	8,389	7,613	8,464	8,713	8,159	9,121
South Dakota	440	416	307	697	279	474
Tennessee	12,815	11,939	11,714	11,710	12,020	14,188
Texas	164,970	181,812	150,210	154,540	153,724	159,503
Utah	3,040	3,424	3,678	3,668	4,480	4,273
Vermont	135	153	152	164	164	194
Virginia	9,453	9,466	8,290	6,375	7,746	6,497
Washington	NA	NA	NA	NA	NA	NA
West Virginia	NA	^R 232	^R 2,734	^R 2,753	^R 4,584	^R 5,091
Wisconsin	10,267	7,967	9,204	9,508	11,658	14,819
Wyoming	NA	NA	4,119	4,293	3,344	NA
Total	^R685,530	^R684,358	^R645,076	^R669,196	^R695,172	^R743,618

See footnotes at end of table.

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	16,441	18,483	201,240	19,049	17,956	16,677
Alaska	6,152	6,454	73,599	6,851	5,551	6,290
Arizona	2,226	2,533	27,864	2,678	2,352	2,329
Arkansas	12,114	13,339	147,969	13,294	12,753	12,551
California	67,501	64,039	737,354	64,122	63,615	58,363
Colorado	6,388	6,949	73,781	7,037	6,542	5,174
Connecticut	3,149	3,402	34,554	3,438	2,840	2,627
Delaware	1,443	1,604	14,805	1,599	1,331	1,193
District of Columbia	0	0	0	0	0	0
Florida	11,053	12,931	130,816	11,157	10,619	10,628
Georgia	13,335	13,808	174,747	13,568	12,922	13,369
Hawaii	0	0	342	342	0	0
Idaho ^a	3,482	3,344	34,999	3,158	3,109	3,226
Illinois	28,719	33,208	317,755	30,894	27,921	24,667
Indiana	25,847	28,857	290,723	27,648	28,003	24,659
Iowa	9,516	11,321	107,463	10,549	9,896	9,571
Kansas	7,811	9,699	112,089	11,682	8,483	8,107
Kentucky	7,550	9,839	95,724	9,220	8,729	8,508
Louisiana	74,500	82,928	1,004,383	84,522	82,180	87,977
Maine	164	202	2,525	218	299	246
Maryland	^R 2,764	^R 3,069	65,954	13,535	4,361	4,427
Massachusetts	8,443	9,923	108,295	8,984	8,165	7,916
Michigan	31,380	33,980	338,456	33,117	28,965	25,006
Minnesota	10,044	9,171	107,338	10,132	10,200	9,130
Mississippi	6,814	NA	83,967	7,562	7,751	7,063
Missouri	6,360	7,047	71,164	6,842	6,397	5,161
Montana	1,449	1,884	18,766	2,120	1,900	1,656
Nebraska	2,902	3,481	44,418	5,064	2,736	3,638
Nevada	1,979	1,593	28,925	2,330	2,316	2,512
New Hampshire	498	481	5,830	468	442	499
New Jersey	17,655	18,980	202,418	18,335	15,921	15,505
New Mexico	2,895	3,254	40,854	3,528	3,319	3,092
New York	NA	NA	305,521	26,822	26,731	20,891
North Carolina	10,404	10,752	111,513	9,830	10,055	9,948
North Dakota	^R 1,844	^R 2,072	20,580	1,975	1,525	1,556
Ohio	31,779	35,912	335,993	31,923	29,457	26,118
Oklahoma	17,131	16,497	206,677	16,693	15,943	15,546
Oregon	8,744	9,760	90,403	9,751	8,789	8,242
Pennsylvania	20,811	22,115	238,220	21,967	21,958	17,472
Rhode Island	2,011	2,173	24,472	2,179	2,148	1,509
South Carolina	9,129	9,645	102,929	9,226	8,685	8,238
South Dakota	500	565	6,928	606	618	424
Tennessee	12,628	NA	138,877	12,776	11,768	11,228
Texas	148,544	169,452	2,058,755	169,958	167,175	167,787
Utah	4,080	4,735	44,162	4,492	4,116	4,216
Vermont	205	223	2,334	235	226	223
Virginia	7,444	6,747	85,264	8,128	7,094	5,989
Washington	NA	NA	111,159	12,255	10,247	9,459
West Virginia	^R 4,659	^R 5,054	57,380	5,201	4,824	4,640
Wisconsin	13,298	16,337	155,677	15,154	14,492	12,184
Wyoming	NA	5,156	46,936	4,066	4,296	3,889
Total	^R727,178	^R790,795	8,842,896	796,281	747,720	711,325

See footnotes at end of table.

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	15,298	15,537	14,984	15,862	17,051	17,881
Alaska	4,218	6,373	5,948	5,893	5,598	6,420
Arizona	2,576	2,369	2,240	2,174	2,336	2,091
Arkansas	11,111	12,082	11,872	11,684	11,991	12,097
California	68,290	68,738	66,660	59,353	57,369	57,182
Colorado	4,717	6,458	4,912	6,073	6,278	5,736
Connecticut	2,378	2,549	2,444	2,444	2,878	3,318
Delaware	1,114	1,009	1,096	1,147	1,301	1,352
District of Columbia	0	0	0	0	0	0
Florida	10,448	10,872	10,607	10,621	11,537	11,506
Georgia	12,457	13,862	13,233	12,135	16,473	17,034
Hawaii	0	0	0	0	0	0
Idaho ^a	2,756	2,371	2,635	2,724	2,673	3,180
Illinois	22,090	20,598	22,236	22,534	25,392	26,558
Indiana	21,620	20,894	20,324	17,709	20,338	24,261
Iowa	8,083	8,285	7,409	7,489	8,159	8,785
Kansas	7,599	8,302	12,164	8,674	8,540	9,183
Kentucky	6,879	6,862	6,341	6,457	7,556	7,603
Louisiana	83,556	86,060	81,897	83,336	84,944	83,486
Maine	211	193	157	199	228	249
Maryland	4,406	5,041	4,765	5,178	4,872	4,468
Massachusetts	7,449	8,618	8,696	10,308	7,856	10,239
Michigan	23,949	24,022	15,926	25,902	28,281	29,068
Minnesota	7,261	8,379	8,154	7,724	7,623	8,561
Mississippi	5,976	6,650	6,989	6,559	6,150	6,990
Missouri	4,392	4,336	4,611	4,784	5,083	7,278
Montana	1,325	1,287	1,122	1,208	1,402	1,210
Nebraska	2,797	3,505	1,717	3,334	3,514	4,583
Nevada	2,528	2,521	2,353	2,335	2,625	2,208
New Hampshire	463	451	428	451	559	638
New Jersey	14,356	18,611	14,648	14,516	15,097	17,337
New Mexico	3,258	3,217	3,447	3,355	3,490	3,181
New York	25,050	22,613	24,246	23,418	24,289	26,049
North Carolina	8,313	8,157	8,382	8,873	9,043	9,764
North Dakota	1,518	1,593	1,362	1,621	1,599	1,806
Ohio	23,913	23,310	21,999	28,629	25,952	26,354
Oklahoma	16,738	17,677	16,664	17,580	17,354	17,384
Oregon	8,019	8,218	7,240	5,515	6,070	6,402
Pennsylvania	16,814	17,511	16,838	16,471	18,876	21,649
Rhode Island	1,440	1,491	2,159	2,265	2,401	2,514
South Carolina	8,832	8,184	7,967	8,568	9,111	9,069
South Dakota	470	499	322	460	531	624
Tennessee	10,408	12,556	10,581	10,591	9,665	12,484
Texas	165,238	174,495	168,624	168,087	170,594	167,379
Utah	2,488	3,361	3,473	3,398	3,623	3,746
Vermont	176	157	144	146	218	199
Virginia	6,911	9,236	8,535	6,165	7,401	6,362
Washington	10,909	10,178	7,788	7,709	8,184	7,891
West Virginia	4,515	4,616	4,480	4,393	4,990	7,557
Wisconsin	10,289	9,734	9,244	9,672	11,545	13,885
Wyoming	3,285	3,833	3,218	3,837	4,101	3,843
Total	688,885	717,470	683,279	689,559	712,740	738,645

^a Small volumes of natural gas representing onsystem sales to industrial consumers in Idaho are included in the annual total but not in monthly components.

^R Revised Data.

^{NA} Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and

revision policy. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

**Table 18. Natural Gas Deliveries to Electric Utility^a Consumers, by State,
1996-1998**
(Million Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998		
				November	October	September
Alabama	24,763	9,909	5,854	568	974	4,214
Alaska	25,730	30,497	28,689	2,659	2,182	2,392
Arizona	34,942	22,633	18,805	2,716	4,778	6,201
Arkansas	40,567	24,511	32,762	123	1,769	6,824
California	253,454	351,672	300,853	20,128	25,316	31,817
Colorado	9,839	5,086	5,056	1,056	691	1,543
Connecticut	10,598	16,207	10,325	9	210	1,606
Delaware	10,226	15,392	22,322	1,152	986	1,319
District of Columbia	0	0	0	0	0	0
Florida	263,785	275,412	270,433	18,419	28,039	27,475
Georgia	21,054	7,294	4,631	337	741	3,350
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	55,357	39,589	25,314	1,478	1,439	6,137
Indiana	9,473	4,524	4,094	184	423	1,066
Iowa	5,998	3,916	3,255	152	184	1,134
Kansas	36,663	23,832	21,935	2,192	1,675	6,370
Kentucky	5,625	2,036	1,754	151	206	978
Louisiana	300,135	260,657	239,218	20,882	24,391	36,598
Maine	0	0	0	0	0	0
Maryland	11,807	10,798	8,244	188	233	2,566
Massachusetts	17,746	49,079	43,475	779	921	1,130
Michigan	45,090	30,259	29,671	3,181	3,954	5,437
Minnesota	7,735	5,987	4,881	272	513	1,563
Mississippi	71,251	68,511	79,580	3,554	4,005	8,142
Missouri	15,552	7,155	5,154	520	230	3,068
Montana	486	399	398	33	48	69
Nebraska	5,040	2,622	2,268	35	155	974
Nevada	53,798	48,130	44,455	4,649	5,734	6,460
New Hampshire	149	530	3	25	0	0
New Jersey	30,342	28,982	25,380	804	376	3,447
New Mexico	37,033	31,377	27,725	2,246	2,709	3,783
New York	197,488	203,217	137,580	8,111	15,889	20,469
North Carolina	12,385	4,509	2,380	29	136	2,132
North Dakota	0	1	3	0	0	0
Ohio	7,304	3,364	2,761	170	272	1,332
Oklahoma	162,243	117,417	130,329	11,536	12,040	21,198
Oregon	24,678	8,763	13,680	4,189	3,702	2,814
Pennsylvania	6,522	7,006	6,957	98	219	560
Rhode Island	15,593	24,558	22,905	0	0	0
South Carolina	5,853	2,696	1,186	97	73	919
South Dakota	2,677	1,648	690	190	61	366
Tennessee	6,215	1,636	572	0	190	1,860
Texas	1,172,955	986,984	987,823	61,799	95,144	143,056
Utah	4,830	3,902	3,287	145	574	1,071
Vermont	184	32	21	3	7	11
Virginia	19,642	10,721	9,942	626	1,436	3,324
Washington	12,719	2,430	6,569	1,742	3,319	2,749
West Virginia	392	207	162	56	52	20
Wisconsin	15,642	15,308	6,600	590	487	2,047
Wyoming	267	80	81	6	13	9
Total	3,071,828	2,771,473	2,600,062	177,881	246,496	379,598

See footnotes at end of table.

Table 18. Natural Gas Deliveries to Electric Utility^a Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	5,130	5,072	4,764	2,844	296	383
Alaska	2,030	2,154	2,093	2,411	2,266	2,382
Arizona	8,186	6,792	1,986	674	1,127	718
Arkansas	8,248	7,084	6,676	5,479	2,283	1,521
California	34,626	26,022	15,338	13,745	18,055	23,374
Colorado	1,419	1,739	901	656	586	416
Connecticut	2,673	1,582	1,709	1,386	157	23
Delaware	1,673	1,648	1,196	900	548	475
District of Columbia	0	0	0	0	0	0
Florida	29,258	31,976	33,192	26,827	15,860	18,020
Georgia	5,026	5,455	4,958	746	98	183
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	7,737	7,707	7,387	7,068	4,835	4,022
Indiana	1,829	2,084	1,878	1,187	205	426
Iowa	1,083	965	774	697	298	245
Kansas	7,339	8,026	5,333	3,207	594	935
Kentucky	1,060	650	950	1,017	107	282
Louisiana	44,645	43,685	38,810	31,812	18,082	16,198
Maine	0	0	0	0	0	0
Maryland	3,147	2,186	1,396	932	373	371
Massachusetts	1,970	1,407	2,169	2,666	1,579	1,565
Michigan	5,545	4,573	5,093	4,212	3,602	3,758
Minnesota	1,483	1,410	994	804	268	204
Mississippi	11,127	10,889	10,630	8,717	4,400	3,921
Missouri	4,002	3,753	2,440	952	210	161
Montana	83	80	26	89	15	39
Nebraska	1,185	1,046	719	634	176	59
Nevada	8,819	8,189	4,036	3,761	3,549	2,446
New Hampshire	26	37	35	0	0	0
New Jersey	6,217	7,107	4,303	3,926	1,380	1,835
New Mexico	4,850	4,218	4,019	4,948	3,448	3,092
New York	34,234	29,304	24,084	18,926	9,076	10,397
North Carolina	3,116	2,042	3,789	1,026	12	91
North Dakota	0	0	0	0	0	0
Ohio	1,424	1,306	1,102	1,005	178	307
Oklahoma	26,923	26,857	20,792	13,893	7,944	9,394
Oregon	3,781	3,008	835	176	2,266	1,335
Pennsylvania	455	1,409	2,013	621	260	406
Rhode Island	2,251	2,238	1,453	1,943	1,606	1,889
South Carolina	1,238	1,239	1,413	687	37	106
South Dakota	608	627	315	366	33	42
Tennessee	1,123	1,407	1,202	432	0	0
Texas	161,305	174,175	153,171	117,366	83,043	80,475
Utah	1,175	1,000	141	138	135	156
Vermont	8	15	7	12	6	3
Virginia	3,647	2,970	2,254	2,158	699	1,197
Washington	3,470	621	33	14	152	121
West Virginia	34	53	46	30	22	29
Wisconsin	2,341	3,064	2,557	2,282	395	1,108
Wyoming	1	5	10	6	8	3
Total	457,551	448,875	379,024	293,378	190,266	194,113

See footnotes at end of table.

Table 18. Natural Gas Deliveries to Electric Utility^a Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	157	362	9,997	87	295	846
Alaska	2,307	2,852	33,510	3,013	2,668	2,680
Arizona	804	962	23,385	752	399	1,542
Arkansas	272	289	24,805	294	375	2,293
California	18,278	26,755	377,946	26,274	22,422	35,151
Colorado	451	381	5,536	450	385	641
Connecticut	109	1,136	16,761	554	1,446	2,234
Delaware	74	256	16,092	699	681	356
District of Columbia	0	0	0	0	0	0
Florida	15,637	19,082	296,903	21,491	14,278	21,229
Georgia	57	102	7,342	49	124	308
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	3,535	4,014	44,607	5,018	3,906	3,795
Indiana	104	87	4,661	137	211	281
Iowa	202	264	4,124	208	252	459
Kansas	446	545	25,822	1,991	2,478	2,643
Kentucky	138	86	2,194	158	190	200
Louisiana	9,860	15,171	277,438	16,781	14,535	22,047
Maine	0	0	0	0	0	0
Maryland	223	191	11,007	209	364	749
Massachusetts	1,320	2,241	51,490	2,411	3,176	3,245
Michigan	2,496	3,239	33,287	3,028	3,135	3,242
Minnesota	105	119	6,098	112	139	382
Mississippi	2,775	3,092	73,083	4,573	4,060	5,428
Missouri	80	135	7,465	310	340	557
Montana	0	1	420	21	30	40
Nebraska	21	37	2,656	34	77	354
Nevada	3,128	3,027	51,777	3,648	1,803	4,364
New Hampshire	26	0	564	34	26	0
New Jersey	419	528	29,534	552	1,340	2,085
New Mexico	1,802	1,918	33,375	1,998	2,224	3,224
New York	10,274	16,724	217,504	14,287	12,326	16,084
North Carolina	1	11	4,512	3	25	507
North Dakota	0	0	1	0	0	0
Ohio	96	114	3,486	122	245	396
Oklahoma	5,205	6,460	128,818	11,401	8,233	10,061
Oregon	1,102	1,471	10,680	1,917	1,075	990
Pennsylvania	257	225	7,370	365	212	301
Rhode Island	1,599	2,613	27,160	2,602	2,488	2,503
South Carolina	11	33	2,731	35	112	240
South Dakota	6	63	1,731	83	90	45
Tennessee	0	0	1,636	0	0	209
Texas	49,071	54,351	1,056,550	69,566	72,391	90,883
Utah	144	153	4,078	177	173	134
Vermont	47	65	36	4	2	4
Virginia	476	853	11,572	851	353	732
Washington	5	492	2,618	187	220	164
West Virginia	29	21	219	11	2	17
Wisconsin	353	418	15,776	467	400	743
Wyoming	200	7	95	15	15	5
Total	133,700	170,946	2,968,453	196,980	179,723	244,394

See footnotes at end of table.

Table 18. Natural Gas Deliveries to Electric Utility^a Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	1,247	2,373	2,901	931	483	386
Alaska	2,289	2,432	2,729	2,574	2,897	2,917
Arizona	5,103	4,808	4,117	1,932	2,742	723
Arkansas	3,376	5,269	7,491	3,445	576	606
California	56,539	48,248	43,993	26,550	37,246	25,416
Colorado	667	716	704	337	394	265
Connecticut	1,722	2,300	2,412	1,364	1,139	1,227
Delaware	667	1,592	2,002	1,097	1,064	1,841
District of Columbia	0	0	0	0	0	0
Florida	27,022	33,982	33,658	31,546	29,444	27,857
Georgia	1,159	2,199	2,595	440	204	177
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	2,375	3,807	7,989	4,591	2,901	4,925
Indiana	242	478	1,683	718	210	199
Iowa	235	373	843	395	272	256
Kansas	2,111	3,489	6,353	3,143	1,238	847
Kentucky	181	311	525	170	21	117
Louisiana	30,516	34,790	39,934	29,946	25,567	19,111
Maine	0	0	0	0	0	0
Maryland	623	1,051	3,382	1,857	726	1,478
Massachusetts	4,785	5,579	6,021	6,210	3,814	6,615
Michigan	2,922	2,852	3,680	2,756	2,752	2,265
Minnesota	289	669	1,136	685	595	620
Mississippi	8,115	11,934	14,013	8,386	4,689	3,034
Missouri	749	1,211	2,792	1,022	95	174
Montana	27	46	116	8	7	15
Nebraska	263	364	879	218	108	172
Nevada	6,209	7,830	7,264	5,272	5,219	3,518
New Hampshire	60	77	12	353	0	0
New Jersey	1,349	4,238	8,150	4,613	1,479	1,868
New Mexico	2,834	4,337	4,025	2,923	2,445	2,548
New York	19,134	28,915	36,082	29,210	17,438	12,102
North Carolina	433	747	1,888	811	61	26
North Dakota	0	0	1	0	0	0
Ohio	268	303	1,073	596	106	107
Oklahoma	14,023	20,503	20,874	12,256	6,716	7,026
Oregon	2,765	2,957	358	147	3	0
Pennsylvania	417	923	2,725	886	295	326
Rhode Island	2,364	2,423	2,005	2,185	2,447	1,854
South Carolina	212	422	922	621	67	72
South Dakota	88	228	582	360	85	85
Tennessee	0	328	844	255	0	0
Texas	126,044	141,896	144,621	103,332	73,259	59,315
Utah	906	1,080	819	25	146	142
Vermont	2	4	4	3	3	3
Virginia	541	1,369	2,863	1,508	622	1,389
Washington	1,191	731	25	1	86	5
West Virginia	15	9	23	40	33	9
Wisconsin	697	895	2,171	1,688	1,854	1,770
Wyoming	5	3	4	13	6	6
Total	332,781	391,090	429,286	297,424	231,548	193,416

^a Includes all steam electric utility generating plants with a combined capacity of 50 megawatts or greater.

Notes: Geographic coverage is the 50 States and the District of Columbia.

See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-759, "Monthly Power Plant Report."

Table 19. Natural Gas Deliveries to All Consumers, by State, 1996-1998

(Million Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998		
				November	October	September
Alabama	276,885	261,270	265,988	19,856	19,777	21,861
Alaska	NA	133,991	135,349	NA	NA	NA
Arizona	120,112	100,863	92,634	9,434	10,325	10,941
Arkansas	NA	220,695	228,643	16,796	16,639	21,855
California	1,683,920	1,662,267	1,553,412	151,476	140,061	146,002
Colorado	NA	229,306	235,832	19,969	12,972	11,177
Connecticut	108,934	118,732	112,569	9,164	6,999	6,999
Delaware	36,748	42,121	49,766	3,589	2,872	2,857
District of Columbia	27,080	29,024	28,907	2,293	1,340	1,176
Florida	440,308	439,332	448,686	33,679	42,187	42,155
Georgia	301,086	312,157	332,877	26,768	19,977	17,087
Hawaii	2,440	2,059	2,452	214	202	212
Idaho	55,249	54,485	54,288	5,353	3,948	3,405
Illinois	825,817	929,735	955,242	90,646	58,587	45,838
Indiana	NA	481,889	496,356	NA	NA	NA
Iowa	203,810	213,458	226,296	20,712	14,913	11,231
Kansas	NA	219,033	241,887	NA	14,923	16,681
Kentucky	164,528	175,871	181,724	17,611	11,855	9,983
Louisiana	NA	1,247,809	NA	96,980	NA	124,339
Maine	NA	5,512	5,121	NA	452	295
Maryland	154,138	172,852	167,826	13,189	^R 9,765	^R 10,282
Massachusetts	NA	339,312	319,091	NA	18,472	NA
Michigan	739,061	831,800	866,025	73,550	51,260	37,242
Minnesota	261,495	294,545	301,144	30,642	20,213	11,180
Mississippi	NA	187,322	200,336	13,846	NA	^R 17,960
Missouri	225,802	240,344	249,460	17,748	11,165	12,463
Montana	43,877	46,737	48,105	4,937	3,509	2,167
Nebraska	NA	113,692	112,210	NA	5,477	3,579
Nevada	125,553	115,461	111,428	11,727	11,224	10,166
New Hampshire	NA	18,377	16,876	NA	^R 1,168	857
New Jersey	NA	544,454	523,318	NA	NA	NA
New Mexico	128,073	123,620	99,349	11,763	8,915	9,670
New York	NA	1,095,641	NA	NA	NA	NA
North Carolina	196,350	182,397	182,602	16,376	12,631	13,759
North Dakota	36,806	38,084	28,111	3,789	2,153	2,186
Ohio	NA	770,370	802,812	73,111	^R 44,361	36,523
Oklahoma	438,379	407,175	417,627	31,292	32,970	43,991
Oregon	NA	139,367	142,975	18,653	15,419	13,053
Pennsylvania	NA	572,396	603,595	50,045	35,333	NA
Rhode Island	NA	73,394	73,679	4,569	3,454	2,871
South Carolina	141,894	134,379	130,984	12,475	10,663	10,940
South Dakota	25,479	28,549	28,785	2,731	1,250	1,294
Tennessee	NA	227,535	225,997	21,469	17,987	18,058
Texas	NA	3,265,367	NA	281,438	NA	326,821
Utah	119,220	117,281	113,271	12,669	10,547	7,201
Vermont	6,831	7,064	6,481	673	453	403
Virginia	209,903	202,298	201,559	18,124	14,551	15,463
Washington	NA	191,762	205,448	NA	NA	NA
West Virginia	NA	104,891	102,565	NA	5,905	NA
Wisconsin	313,133	348,862	347,717	33,446	22,529	20,887
Wyoming	NA	63,291	65,449	NA	5,537	^R 4,617
Total	17,339,954	17,878,231	17,916,449	1,545,664	^R1,314,276	^R1,322,935

See footnotes at end of table.

Table 19. Natural Gas Deliveries to All Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	24,543	23,472	24,005	26,256	24,632	29,592
Alaska	NA	10,365	10,247	10,881	11,872	13,040
Arizona	13,310	12,051	7,467	7,574	10,115	12,001
Arkansas	23,323	21,804	NA	20,481	19,046	24,796
California	150,879	137,488	120,557	140,353	150,888	151,886
Colorado	7,832	NA	NA	18,619	24,720	31,317
Connecticut	8,154	7,337	7,280	7,933	10,871	13,255
Delaware	3,234	3,131	2,833	2,925	3,298	4,030
District of Columbia	1,174	1,242	1,348	1,720	3,025	4,064
Florida	43,299	46,698	48,225	42,720	32,801	36,986
Georgia	23,973	23,937	24,018	20,054	25,861	37,321
Hawaii	228	214	228	216	223	221
Idaho	3,203	3,429	3,876	4,186	5,684	6,585
Illinois	45,258	43,411	46,356	51,280	79,927	110,485
Indiana	NA	NA	31,509	32,851	NA	62,620
Iowa	11,476	11,588	^R 11,060	13,167	20,383	30,256
Kansas	^R 20,943	^R 23,177	18,793	17,585	19,364	29,491
Kentucky	10,000	9,770	10,292	11,505	14,076	21,967
Louisiana	133,511	127,951	NA	111,328	101,836	110,398
Maine	278	251	305	335	470	610
Maryland	^R 11,097	^R 9,930	^R 9,573	^R 10,440	^R 14,048	^R 20,680
Massachusetts	15,857	16,115	NA	21,846	29,256	36,408
Michigan	35,834	35,339	43,866	51,642	77,995	106,043
Minnesota	14,937	13,777	^R 14,587	14,749	21,649	37,306
Mississippi	^R 19,310	18,767	18,596	17,372	15,119	18,465
Missouri	13,884	13,305	12,566	13,741	21,664	33,690
Montana	2,102	2,176	3,638	2,838	4,240	5,477
Nebraska	7,119	8,983	5,849	6,946	9,830	13,612
Nevada	13,422	12,929	9,447	9,976	11,035	11,071
New Hampshire	NA	871	999	1,226	1,864	2,183
New Jersey	32,664	33,937	31,639	41,616	47,096	65,242
New Mexico	10,466	9,749	8,579	11,181	11,954	14,537
New York	76,920	79,590	71,088	NA	82,436	107,969
North Carolina	14,954	13,149	15,680	14,761	17,721	23,352
North Dakota	^R 2,187	^R 2,043	^R 2,397	^R 2,958	^R 3,759	^R 4,760
Ohio	36,233	NA	38,783	45,665	67,612	98,218
Oklahoma	48,401	47,000	40,753	33,071	32,204	43,151
Oregon	12,354	NA	10,671	10,944	NA	NA
Pennsylvania	NA	28,410	31,351	34,776	NA	72,421
Rhode Island	5,009	5,305	4,612	5,733	NA	7,900
South Carolina	11,109	10,339	11,503	11,680	12,349	15,673
South Dakota	1,539	1,600	1,209	2,114	2,244	3,588
Tennessee	17,415	17,040	16,972	17,809	21,904	31,153
Texas	357,700	^R 380,260	320,668	294,670	267,069	288,086
Utah	6,387	6,533	6,931	7,559	12,218	14,697
Vermont	301	325	347	409	716	918
Virginia	16,135	16,601	14,963	14,715	18,956	25,191
Washington	NA	NA	NA	NA	NA	NA
West Virginia	NA	^R 5,999	^R 5,138	^R 5,815	^R 9,625	^R 12,819
Wisconsin	^R 18,786	16,508	18,703	19,671	27,884	44,076
Wyoming	^R 4,575	NA	5,041	5,547	5,396	NA
Total	^R1,419,309	^R1,416,791	^R1,320,314	^R1,358,814	^R1,547,430	^R1,946,597

See footnotes at end of table.

Table 19. Natural Gas Deliveries to All Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	29,830	33,062	292,094	30,822	24,666	20,865
Alaska	12,516	14,428	149,164	15,172	12,560	13,113
Arizona	12,168	14,726	112,590	11,575	6,994	6,675
Arkansas	23,129	23,745	244,644	23,947	19,854	17,536
California	190,777	203,553	1,850,248	185,860	147,134	137,655
Colorado	32,174	36,697	263,988	34,668	23,250	12,664
Connecticut	14,383	16,558	134,557	15,769	11,812	9,002
Delaware	3,776	4,203	46,480	4,356	3,196	2,086
District of Columbia	4,747	4,951	33,824	4,795	2,768	1,452
Florida	32,925	38,634	477,601	38,205	29,083	35,159
Georgia	39,542	42,548	353,700	41,536	35,681	23,924
Hawaii	232	252	2,611	552	78	191
Idaho	7,284	8,295	61,707	7,186	5,519	4,449
Illinois	107,855	146,173	1,062,463	132,707	110,989	70,209
Indiana	57,078	68,688	546,337	64,388	54,190	37,412
Iowa	25,941	33,082	243,476	30,016	24,461	17,115
Kansas	26,029	31,116	248,563	29,528	22,869	14,839
Kentucky	21,257	26,211	202,583	26,707	21,185	14,189
Louisiana	97,310	111,920	1,360,160	112,335	102,939	113,454
Maine	629	777	6,247	735	694	488
Maryland	^R 21,404	^R 23,731	204,319	31,410	17,582	11,557
Massachusetts	38,350	42,828	377,911	38,594	30,037	22,843
Michigan	106,517	119,774	943,881	112,039	89,089	55,893
Minnesota	36,306	46,151	334,572	39,996	36,158	21,195
Mississippi	17,463	18,722	206,749	19,424	16,400	14,616
Missouri	34,874	40,704	276,124	35,740	25,019	12,114
Montana	5,313	7,480	54,114	7,361	5,273	3,728
Nebraska	13,802	16,322	128,031	14,339	10,024	7,229
Nevada	11,832	12,723	127,969	12,443	7,850	9,176
New Hampshire	2,585	2,788	20,822	2,445	1,788	1,237
New Jersey	66,099	70,507	617,638	73,183	53,491	35,294
New Mexico	12,873	18,386	142,353	18,573	12,587	8,917
New York	115,160	130,336	1,220,113	123,888	101,134	75,512
North Carolina	25,906	28,061	206,940	24,543	18,390	13,802
North Dakota	^R 4,840	^R 5,735	42,826	4,737	3,787	2,549
Ohio	99,776	113,599	878,124	107,489	83,928	55,298
Oklahoma	40,846	44,699	452,453	45,168	34,038	29,638
Oregon	17,736	21,237	159,105	19,704	14,600	12,135
Pennsylvania	75,456	75,437	652,219	79,772	62,794	40,047
Rhode Island	7,949	9,352	82,100	8,703	7,312	5,308
South Carolina	17,097	18,065	150,962	16,582	12,978	10,282
South Dakota	3,464	4,445	32,289	3,735	3,069	1,556
Tennessee	28,238	NA	259,773	32,226	23,385	15,919
Texas	252,538	289,282	3,566,640	301,259	280,454	282,035
Utah	16,652	17,827	137,605	20,196	13,494	10,669
Vermont	1,085	1,202	8,052	988	723	529
Virginia	27,386	27,819	232,674	30,339	20,442	13,107
Washington	NA	NA	222,391	30,513	25,964	15,906
West Virginia	^R 12,904	^R 13,678	119,512	14,615	11,696	7,894
Wisconsin	39,114	51,531	396,055	47,139	41,199	26,442
Wyoming	NA	8,805	70,797	7,494	6,457	5,066
Total	^R1,934,723	^R2,213,102	20,018,151	2,135,495	1,731,064	1,379,970

See footnotes at end of table.

Table 19. Natural Gas Deliveries to All Consumers, by State, 1996-1998

(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	19,874	21,774	22,227	20,045	22,082	23,547
Alaska	8,844	10,563	10,544	10,403	11,097	12,740
Arizona	10,639	9,851	9,309	7,229	8,782	7,625
Arkansas	16,564	19,396	21,517	17,581	16,536	18,160
California	164,736	156,325	155,009	125,567	141,632	141,973
Colorado	10,469	11,882	10,936	13,495	20,011	23,411
Connecticut	6,681	7,525	7,962	7,442	9,037	13,055
Delaware	2,211	2,965	3,502	2,849	3,351	4,779
District of Columbia	1,245	1,226	1,202	1,513	2,317	3,054
Florida	40,597	48,113	47,490	45,791	44,670	43,228
Georgia	19,492	21,587	21,684	18,692	23,684	29,529
Hawaii	188	184	199	192	189	196
Idaho	3,487	3,021	3,353	3,555	4,297	5,683
Illinois	42,581	40,316	46,565	44,784	64,825	89,183
Indiana	27,504	26,411	26,781	27,343	36,167	46,045
Iowa	11,323	11,251	11,156	11,230	14,752	19,933
Kansas	12,763	15,259	22,657	14,872	15,156	19,057
Kentucky	9,760	9,195	9,522	9,369	12,400	15,491
Louisiana	117,136	123,872	125,051	116,921	114,992	108,177
Maine	332	296	250	326	436	565
Maryland	9,379	9,962	12,289	12,027	12,557	17,099
Massachusetts	20,155	22,316	22,993	27,915	24,821	38,118
Michigan	41,643	39,832	26,571	48,092	70,858	88,367
Minnesota	12,500	13,651	14,017	14,390	19,634	28,484
Mississippi	15,793	20,654	23,023	17,045	13,616	13,472
Missouri	9,958	10,011	12,287	11,925	15,195	24,205
Montana	2,287	2,167	2,016	2,303	3,275	4,578
Nebraska	5,472	7,103	7,678	6,238	8,891	11,628
Nevada	10,741	12,283	11,610	10,009	10,945	9,659
New Hampshire	937	901	817	1,353	1,496	2,121
New Jersey	28,244	34,275	35,224	33,854	39,652	55,888
New Mexico	8,133	9,587	9,459	7,610	9,965	9,412
New York	71,369	80,369	91,166	88,040	87,576	104,095
North Carolina	11,392	11,394	12,855	13,021	14,350	16,779
North Dakota	2,025	2,025	1,694	2,231	2,876	4,001
Ohio	36,252	34,081	34,596	52,496	58,563	74,110
Oklahoma	34,074	41,433	40,951	33,513	30,552	34,243
Oregon	12,639	12,849	9,489	7,802	9,535	11,844
Pennsylvania	28,446	27,918	29,477	30,274	44,540	59,808
Rhode Island	4,738	4,756	5,074	5,715	6,911	7,507
South Carolina	11,399	10,059	10,397	10,994	11,689	12,137
South Dakota	1,152	1,210	1,397	1,471	2,004	2,899
Tennessee	13,668	15,880	14,483	14,849	15,826	21,437
Texas	312,902	338,035	337,264	293,254	269,575	257,495
Utah	6,475	6,849	6,720	5,971	6,858	11,439
Vermont	345	293	285	354	569	782
Virginia	11,415	14,548	15,383	12,414	16,528	20,044
Washington	16,143	14,325	11,639	12,401	15,918	14,772
West Virginia	6,412	6,360	5,922	6,478	8,845	13,069
Wisconsin	16,682	15,970	16,908	17,020	26,053	33,620
Wyoming	3,926	4,369	4,142	4,738	6,145	6,101
Total	1,293,122	1,366,476	1,384,742	1,304,996	1,432,229	1,634,645

^R Revised Data.

NA Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. Gas volumes delivered for use as vehicle fuel are included in the annual total for commercial deliveries but not in the monthly components. See

Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" and Form EIA-759, "Monthly Power Plant Report."

Table 20. Average City Gate Price, by State, 1996-1998

(Dollars per Thousand Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998				
				November	October	September	August	July
Alabama	3.28	3.88	3.41	3.26	3.64	3.43	3.82	3.97
Alaska	NA	1.81	1.58	NA	1.73	1.71	1.71	1.64
Arizona	2.60	3.27	2.53	2.67	2.61	2.76	2.84	2.85
Arkansas	2.90	3.24	2.60	3.03	2.93	1.88	2.38	3.23
California	2.33	3.01	2.44	2.49	2.22	1.95	2.46	2.39
Colorado	NA	2.97	2.41	2.18	2.24	NA	2.26	NA
Connecticut	5.00	5.05	4.97	4.54	4.28	4.69	4.87	5.14
Delaware	2.91	3.71	3.53	3.83	3.75	3.76	2.70	2.86
District of Columbia	0.00	0.00	0.00	—	—	—	—	—
Florida	3.37	3.99	3.62	3.66	3.48	2.99	3.10	3.14
Georgia	3.40	4.06	3.64	3.24	3.08	3.37	3.45	3.57
Hawaii	5.34	6.44	5.98	5.14	4.95	5.12	5.06	4.77
Idaho	1.98	2.18	2.22	1.99	1.95	2.38	2.14	2.81
Illinois	2.75	3.33	3.15	2.65	2.43	2.24	2.49	3.16
Indiana	NA	3.07	2.98	NA	NA	NA	NA	NA
Iowa	3.63	4.00	3.36	3.05	4.98	4.00	4.29	4.11
Kansas	3.09	3.46	2.94	3.20	2.97	2.83	3.03	^R 3.87
Kentucky	3.25	3.78	3.26	3.19	2.94	3.58	2.85	3.57
Louisiana	NA	3.06	3.00	2.20	NA	2.01	2.05	2.45
Maine	NA	3.95	4.30	NA	3.37	2.69	3.21	5.39
Maryland	NA	4.10	3.92	3.42	NA	NA	5.86	7.62
Massachusetts	NA	3.99	3.87	3.49	3.77	NA	7.10	5.83
Michigan	2.78	2.97	2.82	2.86	2.61	2.69	2.79	2.92
Minnesota	3.02	3.61	2.93	3.04	2.74	2.78	3.06	3.31
Mississippi	NA	3.40	3.12	3.16	NA	^R 2.65	NA	3.09
Missouri	3.44	3.87	3.10	3.12	4.06	4.50	4.61	5.12
Montana	2.39	3.35	2.95	2.57	2.08	2.20	1.87	2.27
Nebraska	3.25	4.12	2.91	2.84	3.03	2.90	3.01	3.65
Nevada	3.10	3.52	2.92	2.60	2.48	3.79	4.43	3.75
New Hampshire	NA	4.16	4.09	3.90	NA	3.34	^R 3.80	4.63
New Jersey	NA	4.25	3.72	NA	NA	NA	3.75	3.86
New Mexico	2.05	2.57	1.69	2.16	1.75	1.64	1.86	1.94
New York	NA	3.28	3.28	NA	NA	NA	NA	3.34
North Carolina	3.54	4.00	3.65	3.16	3.46	3.20	3.43	3.95
North Dakota	2.77	3.44	2.78	3.10	2.74	2.11	^R 2.49	2.57
Ohio	4.72	5.33	4.31	4.23	^R 6.02	3.55	4.70	^R 5.16
Oklahoma	2.55	3.10	2.52	2.52	2.16	2.73	2.61	2.38
Oregon	NA	2.61	2.33	2.61	2.72	2.93	3.60	4.13
Pennsylvania	NA	4.13	3.70	3.48	3.74	5.18	NA	5.50
Rhode Island	NA	4.56	4.30	4.04	4.02	4.23	3.53	3.68
South Carolina	3.48	3.83	3.80	3.34	3.49	3.48	3.57	4.09
South Dakota	3.35	3.68	3.04	3.07	2.76	3.91	4.68	4.27
Tennessee	NA	3.34	3.79	3.57	3.06	2.42	2.77	3.12
Texas	2.90	3.61	3.08	2.85	2.73	2.46	2.70	2.91
Utah	3.16	2.65	2.23	3.07	2.94	3.37	3.48	2.64
Vermont	2.59	2.28	2.75	2.67	1.99	2.26	2.34	2.60
Virginia	3.77	4.21	3.71	3.31	3.80	4.52	5.14	4.51
Washington	NA	2.64	2.32	NA	NA	NA	NA	NA
West Virginia	NA	3.18	3.34	NA	3.48	3.59	NA	NA
Wisconsin	3.45	3.72	3.32	3.35	3.24	4.97	4.38	4.36
Wyoming	NA	3.13	2.30	NA	2.88	2.46	2.93	NA
Total	3.13	3.60	3.22	3.01	^R3.01	2.75	^R3.14	^R3.39

See footnotes at end of table.

Table 20. Average City Gate Price, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1998						1997	
	June	May	April	March	February	January	Total	December
Alabama	3.86	3.56	3.20	3.03	2.93	3.18	3.65	2.60
Alaska	1.67	1.68	1.71	1.73	1.72	1.75	1.81	1.82
Arizona	2.60	2.93	2.75	2.55	2.28	2.46	3.15	2.53
Arkansas	2.31	3.00	2.96	3.13	2.85	3.09	3.23	3.19
California	2.34	2.49	2.33	2.38	2.12	2.35	2.98	2.65
Colorado	2.43	2.46	NA	NA	NA	NA	2.92	2.57
Connecticut	4.74	5.08	5.89	4.87	5.24	5.23	5.11	5.55
Delaware	4.35	1.79	2.63	2.73	3.02	2.71	3.53	2.43
District of Columbia	—	—	—	—	—	—	—	—
Florida	2.96	3.15	3.92	3.25	3.20	3.81	3.97	3.85
Georgia	3.01	3.55	3.63	3.85	3.18	3.43	3.98	3.65
Hawaii	4.86	5.21	5.21	6.25	5.75	6.40	6.42	6.23
Idaho	2.18	1.94	1.96	1.81	1.94	1.89	2.12	1.79
Illinois	2.15	3.64	2.90	2.81	2.85	2.78	3.28	2.92
Indiana	^R 1.04	2.80	NA	2.32	2.48	2.49	3.03	2.79
Iowa	1.98	4.17	3.33	3.42	3.33	3.80	4.06	4.45
Kansas	3.66	3.17	2.79	2.86	2.73	3.56	3.47	3.60
Kentucky	3.12	3.33	3.99	3.23	3.09	3.22	3.83	4.07
Louisiana	2.19	2.36	2.29	2.53	2.25	2.81	3.04	2.86
Maine	NA	NA	3.25	3.25	3.25	3.25	3.84	3.10
Maryland	5.94	5.58	4.37	3.44	3.43	2.96	4.02	3.57
Massachusetts	5.52	4.56	3.48	3.30	2.89	3.40	3.85	3.09
Michigan	2.50	2.69	2.78	2.97	2.89	2.94	2.99	3.19
Minnesota	2.88	3.24	2.95	3.00	2.90	3.27	3.67	4.06
Mississippi	2.86	NA	NA	NA	2.99	NA	3.39	3.31
Missouri	4.87	4.47	3.72	2.97	2.99	2.96	3.75	3.13
Montana	2.39	2.22	2.29	2.50	2.41	2.71	3.16	2.51
Nebraska	2.98	3.73	3.29	2.98	2.70	4.71	4.24	5.31
Nevada	3.37	3.25	3.00	3.29	3.00	3.03	3.39	2.84
New Hampshire	NA	3.36	3.37	3.93	3.74	3.77	4.10	3.72
New Jersey	3.57	3.00	3.54	3.53	3.38	4.37	4.19	3.77
New Mexico	1.76	2.04	2.19	2.20	2.02	2.24	2.53	2.31
New York	2.88	NA	3.01	NA	NA	NA	3.51	3.33
North Carolina	3.83	3.66	3.91	3.49	3.47	3.65	3.97	3.72
North Dakota	2.34	2.74	2.86	2.91	2.85	2.93	3.38	3.01
Ohio	4.75	5.04	4.89	4.87	4.27	4.82	5.18	4.35
Oklahoma	2.51	2.46	2.36	2.38	2.61	2.86	3.12	3.33
Oregon	3.22	2.78	NA	NA	2.31	2.53	2.58	2.42
Pennsylvania	4.79	3.94	NA	5.26	3.64	3.68	4.09	3.84
Rhode Island	3.61	3.70	NA	3.38	3.35	3.93	4.49	4.02
South Carolina	3.81	3.90	3.66	3.34	3.05	3.37	3.81	3.72
South Dakota	2.91	4.42	4.37	2.60	3.66	3.22	3.65	3.46
Tennessee	3.39	3.90	6.62	2.42	3.84	NA	3.36	3.66
Texas	2.65	2.97	2.94	2.84	2.87	3.26	3.66	3.97
Utah	2.73	2.62	2.89	3.23	3.68	3.25	2.79	3.46
Vermont	2.69	2.82	2.74	2.92	2.66	2.59	2.33	2.64
Virginia	4.32	4.37	3.64	3.25	3.63	3.97	4.14	3.69
Washington	NA	NA	NA	NA	NA	NA	2.62	2.39
West Virginia	NA	NA	3.61	2.58	3.15	3.34	3.17	3.11
Wisconsin	3.82	3.63	3.54	3.33	2.99	3.21	3.67	3.32
Wyoming	2.53	NA	1.28	3.29	3.31	NA	3.11	2.93
Total	^R2.99	3.11	3.21	3.22	3.08	3.28	3.61	3.42

See footnotes at end of table.

Table 20. Average City Gate Price, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	November	October	September	August	July	June	May	April
Alabama	3.97	4.17	3.83	3.88	4.10	3.86	3.54	3.16
Alaska	1.82	1.78	1.79	1.73	1.74	1.70	1.78	1.81
Arizona	3.48	3.80	3.74	3.16	2.98	3.32	3.18	2.61
Arkansas	3.44	3.61	2.87	3.28	2.78	2.77	2.59	2.48
California	3.30	3.18	2.74	2.79	3.72	2.67	2.55	2.30
Colorado	3.59	2.71	2.66	2.41	2.67	2.57	2.42	2.52
Connecticut	3.87	4.96	5.29	5.33	4.55	4.76	4.81	4.94
Delaware	5.78	5.23	1.44	3.17	3.35	3.42	3.17	2.88
District of Columbia	—	—	—	—	—	—	—	—
Florida	4.45	4.64	3.82	3.31	3.41	3.50	3.09	3.62
Georgia	4.01	4.05	5.29	3.89	3.95	4.37	3.20	3.08
Hawaii	6.22	6.09	6.11	6.35	6.59	5.46	6.47	7.21
Idaho	2.07	2.01	2.17	2.50	2.16	2.83	2.98	2.08
Illinois	3.72	4.00	3.78	3.37	2.81	3.11	3.06	2.48
Indiana	3.21	3.64	3.15	2.87	2.54	2.35	2.32	2.07
Iowa	4.85	4.98	5.39	5.86	6.62	4.75	3.50	2.83
Kansas	4.28	3.67	3.47	3.09	2.88	3.02	2.85	2.38
Kentucky	4.28	3.83	3.57	3.62	3.68	3.69	3.30	3.62
Louisiana	3.75	3.44	3.02	2.50	2.58	2.64	2.41	2.37
Maine	2.72	4.11	3.79	4.43	4.34	4.53	4.69	3.43
Maryland	4.22	4.69	5.77	6.05	5.81	4.34	4.33	3.21
Massachusetts	4.14	4.52	5.00	4.91	5.29	5.61	2.86	3.26
Michigan	3.51	3.12	2.87	2.63	2.54	2.69	2.60	2.56
Minnesota	4.52	4.26	4.02	2.97	3.92	3.49	2.64	2.41
Mississippi	3.83	3.86	3.25	2.88	2.87	2.95	2.43	2.89
Missouri	3.92	4.66	5.08	4.80	4.62	5.32	3.96	3.12
Montana	3.15	4.47	3.76	3.96	3.63	3.91	2.28	3.09
Nebraska	6.30	5.76	7.03	5.51	4.96	4.09	3.11	2.28
Nevada	3.71	3.46	4.12	3.99	3.87	3.64	2.72	2.81
New Hampshire	4.02	3.95	4.02	4.45	4.28	4.34	3.66	3.15
New Jersey	4.49	4.84	4.34	4.41	4.29	4.21	3.86	3.15
New Mexico	2.85	2.59	2.62	2.18	2.13	2.13	2.04	1.91
New York	4.00	3.68	2.92	2.79	2.59	2.87	2.64	2.69
North Carolina	4.09	3.95	4.13	3.96	3.90	3.84	3.83	3.40
North Dakota	4.01	3.73	3.53	3.36	3.14	3.17	2.95	2.50
Ohio	4.66	5.09	4.91	5.51	7.16	6.45	5.96	5.79
Oklahoma	3.19	3.04	2.58	2.66	3.23	2.66	2.22	2.22
Oregon	2.73	2.48	3.12	4.01	3.45	3.00	3.02	1.95
Pennsylvania	4.20	4.60	4.22	4.95	4.32	4.90	4.30	3.48
Rhode Island	4.46	4.53	5.71	6.64	7.53	6.42	4.81	3.46
South Carolina	4.13	4.15	4.03	3.86	3.74	3.78	3.54	3.25
South Dakota	3.68	3.43	4.03	4.26	4.40	4.58	3.75	3.02
Tennessee	4.37	3.93	2.78	2.51	2.71	2.82	2.96	2.51
Texas	3.86	3.57	3.21	3.11	3.23	3.01	2.50	2.38
Utah	3.07	2.64	2.81	3.02	2.83	2.35	1.93	2.15
Vermont	2.77	2.34	2.29	2.33	2.41	2.58	2.77	2.39
Virginia	4.11	4.71	4.69	4.47	4.27	3.77	5.12	3.28
Washington	2.82	2.27	2.44	2.41	2.53	2.28	2.53	2.70
West Virginia	3.07	3.62	3.53	3.90	1.87	3.90	3.02	2.88
Wisconsin	3.75	3.91	4.63	5.12	3.71	5.09	3.49	3.11
Wyoming	3.61	3.25	3.35	2.90	2.94	2.85	1.64	2.48
Total	3.91	3.86	3.50	3.34	3.44	3.41	3.11	2.92

^R Revised Data.

NA Not Available.

— Not Applicable.

Notes: Geographic coverage is the 50 States and the District of Columbia. Prices in this table represent the average price of natural gas by State at the

point where the gas transferred from a pipeline to a local distribution company within the State. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 21. Average Price of Natural Gas Delivered to Residential Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998				
				November	October	September	August	July
Alabama	8.06	8.55	7.20	9.94	10.92	10.71	10.78	11.13
Alaska	3.69	3.80	3.44	3.70	3.74	3.01	3.75	4.71
Arizona	8.58	7.86	7.64	9.91	12.07	13.01	13.19	12.24
Arkansas	7.39	6.74	5.81	6.79	8.13	8.81	8.99	9.03
California	6.93	6.75	6.48	6.80	6.88	7.01	7.21	7.07
Colorado	NA	4.82	4.47	5.18	5.75	8.36	7.44	NA
Connecticut	10.53	10.36	10.02	10.51	11.13	11.73	11.80	11.62
Delaware	8.90	8.40	7.06	9.38	11.62	12.78	12.61	11.67
District of Columbia	8.97	9.47	9.02	9.29	10.65	11.22	8.59	8.87
Florida	11.69	11.92	10.76	12.19	14.12	13.56	13.59	13.79
Georgia	7.45	7.70	6.68	3.43	7.99	15.53	15.94	16.76
Hawaii	19.37	21.87	19.84	19.41	19.27	^R 19.41	^R 18.31	18.60
Idaho	5.37	5.14	5.25	5.43	5.80	6.55	6.71	6.26
Illinois	5.59	6.05	5.30	5.01	5.97	8.06	8.16	8.69
Indiana	NA	6.52	5.52	NA	NA	NA	NA	NA
Iowa	6.09	6.20	5.45	5.69	7.32	10.97	10.78	11.56
Kansas	6.17	6.50	5.56	5.98	7.54	7.97	7.94	8.04
Kentucky	6.08	6.37	5.45	5.67	7.83	9.19	9.75	7.87
Louisiana	NA	7.30	6.69	7.93	NA	8.91	8.84	8.85
Maine	NA	8.48	7.74	NA	7.61	8.88	9.13	9.11
Maryland	NA	8.52	7.57	7.86	NA	NA	11.52	12.03
Massachusetts	NA	9.35	8.79	NA	9.55	NA	11.36	10.45
Michigan	5.17	5.24	4.94	4.80	5.38	6.96	7.35	7.12
Minnesota	5.53	5.86	5.33	5.30	6.01	7.04	7.32	7.57
Mississippi	NA	6.46	5.61	6.80	NA	^R 7.55	^R 7.59	7.60
Missouri	6.62	6.63	5.96	6.62	8.84	9.86	10.94	9.76
Montana	NA	5.00	4.90	5.27	5.90	7.04	6.89	6.70
Nebraska	5.26	5.65	4.79	4.81	5.74	6.91	7.12	6.87
Nevada	7.17	6.28	6.27	7.14	8.00	9.25	9.27	8.69
New Hampshire	NA	8.48	7.25	8.27	^R 7.39	9.03	NA	9.15
New Jersey	NA	7.98	7.18	NA	NA	NA	9.93	9.63
New Mexico	5.70	6.50	4.62	4.22	7.96	10.19	10.57	10.89
New York	NA	9.78	NA	NA	NA	NA	13.55	7.01
North Carolina	8.61	9.18	7.54	8.33	11.73	12.56	13.29	12.05
North Dakota	5.22	4.89	4.58	5.08	5.69	7.69	9.87	7.09
Ohio	NA	6.84	5.84	6.15	^R 7.82	9.30	9.89	NA
Oklahoma	6.16	6.37	5.69	6.31	8.64	9.50	9.33	8.91
Oregon	NA	6.24	6.38	6.88	7.62	8.78	9.04	8.33
Pennsylvania	NA	8.42	7.34	8.18	9.23	NA	NA	11.22
Rhode Island	NA	9.71	8.46	9.79	10.78	12.15	12.14	11.94
South Carolina	8.42	8.50	7.34	8.96	9.57	10.10	10.32	10.18
South Dakota	5.69	5.72	5.22	5.35	6.34	8.38	8.63	8.90
Tennessee	NA	6.97	6.28	6.62	8.09	8.51	9.03	8.68
Texas	6.44	6.46	5.84	6.58	8.16	8.79	8.97	8.86
Utah	5.60	5.10	4.42	5.77	4.78	6.13	7.01	6.70
Vermont	6.56	6.44	6.42	6.64	7.46	5.12	8.77	8.91
Virginia	8.74	8.73	7.85	8.52	10.97	12.22	12.28	12.22
Washington	NA	5.63	5.69	NA	NA	NA	NA	NA
West Virginia	NA	7.00	7.06	NA	7.64	NA	NA	NA
Wisconsin	6.10	6.46	5.90	6.06	5.42	6.51	^R 6.66	7.16
Wyoming	NA	4.38	4.31	NA	5.26	^R 5.20	^R 7.30	NA
Total	6.91	7.01	6.32	6.66	^R7.62	8.93	^R9.19	8.62

See footnotes at end of table.

Table 21. Average Price of Natural Gas Delivered to Residential Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1998						1997	
	June	May	April	March	February	January	Total	December
Alabama	10.91	8.99	7.73	7.00	7.10	7.41	8.35	7.28
Alaska	4.02	3.83	3.66	3.71	3.65	3.56	3.77	3.62
Arizona	11.02	9.58	8.14	7.39	7.40	7.23	7.83	7.61
Arkansas	8.72	5.83	6.86	6.41	6.50	9.42	6.67	6.26
California	7.32	7.01	6.80	6.78	6.49	7.28	6.81	7.20
Colorado	NA	5.24	4.74	4.49	4.57	4.50	4.81	4.73
Connecticut	11.11	11.57	9.78	10.18	10.33	10.36	10.33	10.15
Delaware	10.99	9.44	8.51	8.15	8.08	8.07	8.36	8.04
District of Columbia	8.50	9.70	8.86	8.62	8.44	9.01	9.39	8.97
Florida	13.30	13.08	11.34	10.51	10.47	10.33	11.90	11.78
Georgia	11.73	13.50	7.09	5.78	6.15	6.40	7.41	6.05
Hawaii	18.75	19.37	19.21	19.87	20.46	19.99	21.74	20.43
Idaho	5.86	5.59	5.38	5.18	5.14	5.01	5.12	4.98
Illinois	8.09	7.94	5.79	4.90	4.91	4.88	5.95	5.38
Indiana	9.95	8.81	NA	6.13	6.22	6.12	6.37	5.51
Iowa	8.41	7.80	6.36	4.79	4.97	5.49	6.17	6.02
Kansas	7.61	6.60	5.92	5.76	5.80	5.82	6.42	5.92
Kentucky	8.15	7.15	6.56	5.25	5.47	5.48	6.37	6.39
Louisiana	8.36	8.95	6.46	5.28	5.60	6.10	7.16	6.34
Maine	8.33	8.66	7.90	7.90	7.90	7.90	8.47	8.36
Maryland	10.82	9.82	8.36	7.53	7.36	7.38	8.36	7.38
Massachusetts	NA	NA	9.64	9.37	9.26	9.19	9.43	9.94
Michigan	6.23	5.85	5.11	4.69	4.92	4.85	5.20	4.98
Minnesota	7.15	6.45	5.60	5.18	5.11	5.07	5.76	5.09
Mississippi	7.32	6.44	5.88	NA	5.39	NA	6.35	5.74
Missouri	8.84	7.40	6.14	5.58	5.86	6.30	6.61	6.46
Montana	6.44	NA	5.15	4.97	5.03	4.87	5.05	5.31
Nebraska	6.42	5.99	5.09	4.74	4.93	5.28	5.69	6.01
Nevada	7.74	7.30	6.90	6.80	6.79	6.53	6.27	6.18
New Hampshire	8.20	7.07	6.50	8.50	8.38	8.30	8.48	8.46
New Jersey	9.32	6.80	7.71	7.39	7.23	7.41	7.93	7.62
New Mexico	31.23	9.69	6.26	4.55	5.23	3.72	5.87	3.68
New York	NA	NA	9.26	8.54	8.62	8.75	9.73	9.34
North Carolina	11.81	9.29	7.91	7.77	7.93	8.33	8.98	8.03
North Dakota	7.03	5.96	5.12	4.79	4.68	4.52	4.99	5.67
Ohio	7.35	6.56	6.22	5.97	5.75	6.25	6.75	6.20
Oklahoma	8.37	6.84	5.56	5.43	5.73	5.56	6.23	5.44
Oregon	7.48	7.19	NA	NA	6.44	6.09	6.21	6.01
Pennsylvania	10.51	9.02	NA	8.05	8.03	9.60	8.33	7.75
Rhode Island	10.94	9.67	NA	9.03	8.86	8.83	9.61	8.97
South Carolina	9.76	8.44	7.88	8.02	8.27	8.17	8.37	7.77
South Dakota	6.54	6.88	5.88	5.31	5.07	5.01	5.75	5.94
Tennessee	8.15	6.95	6.42	5.96	6.31	NA	6.91	6.66
Texas	7.94	7.31	6.29	5.14	6.58	5.42	6.32	5.59
Utah	5.39	5.72	4.85	5.51	5.73	5.83	5.13	5.29
Vermont	8.08	7.28	6.45	6.30	6.23	6.19	6.41	6.21
Virginia	11.73	10.14	8.28	7.75	8.05	8.11	8.60	7.90
Washington	NA	NA	NA	NA	NA	NA	5.64	5.68
West Virginia	NA	NA	7.55	6.85	6.78	6.81	6.81	5.87
Wisconsin	6.50	6.29	6.02	6.28	5.98	5.96	6.43	6.28
Wyoming	5.99	5.79	5.25	5.13	5.14	NA	4.58	6.16
Total	8.41	7.59	6.78	6.27	6.41	6.47	6.94	6.54

See footnotes at end of table.

Table 21. Average Price of Natural Gas Delivered to Residential Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	November	October	September	August	July	June	May	April
Alabama	7.95	11.05	11.56	11.64	11.21	10.40	8.65	9.17
Alaska	3.69	3.75	3.94	4.49	4.43	4.27	3.88	3.75
Arizona	9.20	11.36	9.13	10.57	10.08	9.62	8.71	7.95
Arkansas	6.43	8.70	9.57	9.29	8.68	8.26	6.96	6.43
California	7.48	7.80	7.42	7.56	7.05	7.70	6.38	6.18
Colorado	5.18	5.96	7.16	6.95	6.91	5.94	4.91	4.71
Connecticut	10.30	10.27	11.45	11.35	11.22	10.59	10.59	9.96
Delaware	8.69	10.74	11.79	11.86	11.61	10.06	8.87	8.19
District of Columbia	11.01	11.27	11.34	8.40	8.46	8.28	9.18	8.74
Florida	13.01	13.85	14.01	14.09	13.72	13.25	12.51	12.07
Georgia	5.91	8.08	10.62	11.74	11.85	12.36	10.41	6.22
Hawaii	20.87	21.07	21.36	21.64	21.20	21.54	21.81	21.33
Idaho	5.28	5.66	6.37	6.52	6.16	5.81	5.26	5.10
Illinois	5.65	6.05	8.01	7.88	7.84	7.94	5.43	5.10
Indiana	5.85	6.65	8.81	9.44	10.22	8.89	7.26	6.73
Iowa	6.41	7.69	11.05	10.11	9.41	7.97	6.13	5.16
Kansas	6.42	7.68	8.49	8.21	7.47	7.98	6.20	6.00
Kentucky	6.09	7.41	7.82	9.10	8.52	7.44	6.57	6.74
Louisiana	7.88	9.43	8.96	8.49	8.21	8.21	7.25	5.96
Maine	8.21	7.80	9.46	9.25	9.69	8.39	7.95	9.05
Maryland	8.71	9.91	10.72	11.35	10.88	9.62	8.26	8.14
Massachusetts	9.70	8.51	10.00	10.39	9.78	8.25	7.43	9.82
Michigan	5.13	5.80	6.88	7.33	6.95	6.21	5.15	4.97
Minnesota	6.04	6.67	8.31	7.94	7.76	6.78	5.39	4.63
Mississippi	6.79	8.40	8.06	7.91	7.62	7.45	7.00	6.50
Missouri	6.70	8.86	9.63	9.42	8.81	7.58	5.91	5.35
Montana	5.39	5.81	6.70	6.95	7.42	6.07	4.98	4.71
Nebraska	6.01	7.31	7.67	7.47	7.21	6.48	4.51	4.77
Nevada	6.72	7.64	7.92	7.96	7.55	7.28	6.61	6.14
New Hampshire	8.87	7.47	8.93	9.17	9.01	7.59	6.62	6.62
New Jersey	7.77	8.53	9.91	10.12	9.80	9.55	8.45	7.18
New Mexico	4.56	8.48	11.05	11.33	11.85	41.56	6.66	8.95
New York	9.93	11.38	12.59	11.62	12.70	10.83	9.01	8.51
North Carolina	8.21	11.17	13.08	13.12	12.39	10.28	8.56	8.66
North Dakota	5.81	6.50	7.36	7.39	7.19	6.29	5.33	4.20
Ohio	6.31	7.40	8.29	8.46	8.71	7.42	6.74	6.60
Oklahoma	6.06	8.77	9.11	9.19	8.79	7.99	6.68	5.85
Oregon	6.28	6.59	7.34	7.54	7.31	7.08	6.51	6.18
Pennsylvania	7.87	8.98	10.93	11.68	11.83	10.14	8.87	8.40
Rhode Island	9.74	10.64	12.10	12.53	12.30	10.90	9.70	9.67
South Carolina	7.79	9.28	9.88	9.97	9.47	8.72	7.87	8.14
South Dakota	6.16	7.07	9.10	8.07	8.39	7.83	5.92	4.95
Tennessee	6.68	8.26	8.74	8.93	8.85	8.05	6.44	6.34
Texas	6.40	8.00	8.55	8.78	8.26	7.72	6.33	5.58
Utah	5.70	4.65	5.59	5.98	5.65	5.71	5.84	4.19
Vermont	6.43	7.06	8.41	8.78	8.51	7.35	6.52	6.23
Virginia	8.80	10.85	12.04	12.20	11.99	10.50	8.88	7.97
Washington	5.75	5.83	5.86	5.88	5.90	5.84	5.71	5.70
West Virginia	6.63	6.02	8.96	9.68	10.50	8.53	7.31	6.96
Wisconsin	7.13	5.98	6.82	6.89	6.48	6.58	5.06	6.22
Wyoming	5.26	5.54	6.29	6.59	5.91	5.32	3.27	4.80
Total	6.86	7.69	8.84	8.99	8.78	8.30	6.83	6.53

^R Revised Data.^{NA} Not Available.

Notes: Data for 1997 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District

of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 22. Average Price of Natural Gas Sold to Commercial Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998				
				November	October	September	August	July
Alabama	6.60	7.05	6.15	7.53	7.06	6.92	6.96	7.25
Alaska	2.40	2.43	2.31	2.47	2.32	3.22	2.15	2.08
Arizona	5.91	5.29	5.02	6.38	6.45	5.78	6.30	6.25
Arkansas	NA	5.24	4.55	5.16	4.90	5.02	4.99	5.29
California	6.26	6.36	5.91	5.98	5.64	5.83	5.88	5.50
Colorado	NA	4.00	3.72	3.83	4.01	4.44	4.16	NA
Connecticut	6.77	7.19	7.34	6.74	5.49	5.44	5.53	4.66
Delaware	7.09	6.71	5.76	6.93	8.05	8.72	8.40	8.14
District of Columbia	7.36	8.03	7.27	7.69	7.49	7.35	7.14	6.98
Florida	6.61	6.81	6.45	6.47	6.38	6.27	6.22	6.55
Georgia	6.26	6.55	5.83	3.34	4.90	9.08	8.96	9.40
Hawaii	13.22	15.97	14.34	13.04	13.00	15.00	10.50	12.36
Idaho	4.62	4.51	4.60	4.83	4.91	4.94	4.88	4.90
Illinois	4.96	5.46	4.87	4.84	5.20	5.13	5.99	6.29
Indiana	NA	5.49	4.62	NA	NA	NA	NA	NA
Iowa	4.66	5.18	4.49	4.41	5.02	6.38	6.27	7.53
Kansas	5.14	5.42	4.56	5.84	5.45	5.57	4.36	5.45
Kentucky	5.47	5.76	4.99	5.05	5.58	5.69	5.69	6.14
Louisiana	NA	6.26	6.00	6.19	NA	5.82	5.68	5.85
Maine	NA	7.68	6.98	NA	6.55	6.89	6.89	6.81
Maryland	6.58	6.63	6.00	6.07	^R 7.74	^R 7.27	^R 7.40	^R 7.88
Massachusetts	NA	7.25	6.59	7.10	6.06	NA	6.45	6.22
Michigan	4.86	5.02	4.71	4.64	5.05	5.35	5.70	5.88
Minnesota	4.41	4.87	4.45	4.27	4.23	3.93	4.44	4.66
Mississippi	NA	5.27	5.16	3.64	NA	^R 3.64	^R 4.11	4.25
Missouri	5.67	5.82	5.27	5.50	6.17	5.71	6.04	5.93
Montana	NA	4.73	4.67	5.24	5.73	6.23	5.86	6.06
Nebraska	NA	4.82	4.33	NA	3.72	3.52	3.73	3.91
Nevada	5.95	5.06	4.91	6.33	6.61	6.92	6.90	6.08
New Hampshire	NA	7.61	6.60	NA	^R 5.94	6.40	NA	6.59
New Jersey	NA	6.01	6.12	NA	NA	NA	2.87	3.96
New Mexico	4.15	4.16	3.35	3.34	4.11	4.49	4.71	4.88
New York	NA	6.46	NA	NA	NA	NA	4.68	5.67
North Carolina	6.56	7.00	6.09	6.89	6.23	6.26	6.28	6.45
North Dakota	4.34	4.28	3.89	4.31	4.39	4.73	7.28	4.72
Ohio	NA	6.29	5.31	5.74	NA	7.19	7.81	NA
Oklahoma	5.37	5.36	4.65	6.24	5.34	5.39	5.34	5.39
Oregon	NA	4.62	4.88	4.43	5.53	5.55	5.89	5.75
Pennsylvania	NA	7.43	6.38	6.63	7.33	7.92	NA	8.03
Rhode Island	NA	8.23	7.45	8.11	8.65	9.14	9.35	8.98
South Carolina	6.42	6.65	6.16	6.58	5.73	5.89	5.91	5.94
South Dakota	4.49	4.65	4.18	4.24	4.84	5.65	5.60	6.23
Tennessee	NA	6.07	5.71	5.97	6.65	5.79	6.24	5.98
Texas	4.54	4.90	4.13	4.40	4.33	4.33	4.19	4.30
Utah	4.32	3.81	3.32	4.69	4.00	4.43	4.81	4.37
Vermont	5.13	5.18	5.24	4.95	4.81	4.63	5.17	4.91
Virginia	6.07	6.46	5.81	6.19	6.44	6.06	6.21	5.76
Washington	NA	4.72	4.81	NA	NA	NA	NA	NA
West Virginia	NA	6.37	6.07	6.12	6.21	6.22	6.55	6.86
Wisconsin	4.87	5.33	4.69	4.97	4.08	4.21	4.37	4.82
Wyoming	NA	3.72	3.77	NA	4.70	4.69	5.84	NA
Total	5.50	5.81	5.35	5.28	^R5.33	5.52	5.49	^R5.62

See footnotes at end of table.

Table 22. Average Price of Natural Gas Sold to Commercial Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1998						1997	
	June	May	April	March	February	January	Total	December
Alabama	7.24	6.18	6.00	6.27	6.47	6.65	6.98	6.56
Alaska	2.05	2.24	2.31	2.39	2.45	2.49	2.44	2.55
Arizona	6.19	6.14	5.79	5.50	5.59	5.65	5.31	5.55
Arkansas	NA	5.31	5.23	5.04	5.19	5.14	5.23	5.13
California	5.91	5.68	6.65	7.06	6.75	6.69	6.41	6.99
Colorado	4.44	4.21	4.05	4.04	4.07	4.18	4.06	4.43
Connecticut	5.88	7.03	6.86	7.42	7.28	7.73	7.23	7.48
Delaware	7.81	7.33	6.85	6.75	6.72	6.70	6.70	6.60
District of Columbia	6.97	6.99	7.09	7.46	7.34	7.65	7.37	3.15
Florida	6.70	6.83	6.71	6.69	6.72	6.83	6.85	7.22
Georgia	7.59	7.99	5.53	5.51	5.86	6.16	6.43	5.73
Hawaii	12.60	13.20	13.32	13.66	14.41	14.35	15.77	13.87
Idaho	4.83	4.77	4.76	4.46	4.40	4.41	4.49	4.35
Illinois	5.72	6.81	5.21	4.70	4.25	4.76	5.43	5.21
Indiana	NA	6.35	NA	5.44	5.97	5.52	5.44	5.11
Iowa	4.17	5.48	5.19	3.72	4.08	4.71	5.18	5.16
Kansas	5.65	5.75	6.08	3.85	5.43	5.44	5.38	5.14
Kentucky	5.57	5.33	5.67	5.44	5.63	5.32	5.79	5.92
Louisiana	NA	6.10	5.49	4.94	5.24	5.73	6.22	5.91
Maine	6.70	7.20	7.41	7.41	7.41	7.41	7.70	7.79
Maryland	^R 7.02	^R 7.35	^R 7.06	^R 6.16	^R 6.08	^R 6.43	6.52	5.61
Massachusetts	6.55	6.86	7.65	7.46	7.73	7.39	7.34	8.03
Michigan	5.38	5.21	4.92	4.58	4.76	4.77	5.00	4.87
Minnesota	4.46	4.63	4.53	4.41	4.42	4.50	4.80	4.34
Mississippi	4.23	4.67	4.90	4.69	4.35	5.11	5.26	5.23
Missouri	5.65	5.52	5.37	5.27	5.63	6.08	5.88	6.23
Montana	5.47	NA	5.05	4.91	4.97	4.85	4.83	5.39
Nebraska	3.91	4.25	4.42	6.13	4.44	4.66	4.88	5.35
Nevada	5.91	5.75	5.76	5.69	5.76	5.63	5.08	5.32
New Hampshire	NA	5.98	6.06	7.64	7.57	7.60	7.63	7.77
New Jersey	3.74	3.84	4.17	3.83	4.13	4.85	5.88	4.97
New Mexico	6.66	5.15	4.42	3.91	4.35	3.66	4.01	3.25
New York	5.01	NA	6.20	NA	NA	NA	6.49	6.80
North Carolina	6.16	6.18	6.09	6.45	6.72	7.05	7.00	6.96
North Dakota	4.86	4.54	4.16	4.17	4.13	4.03	4.35	4.94
Ohio	6.30	5.76	5.79	5.62	5.43	5.96	6.23	5.86
Oklahoma	5.24	4.97	4.57	5.27	5.56	5.53	5.34	5.23
Oregon	5.52	5.51	NA	NA	5.17	4.92	4.63	4.66
Pennsylvania	8.25	8.23	NA	7.33	7.36	7.14	7.35	6.89
Rhode Island	8.88	8.37	NA	7.88	7.78	7.75	8.21	7.98
South Carolina	6.00	5.98	6.40	6.55	6.91	6.92	6.74	7.31
South Dakota	4.33	5.07	4.69	4.37	4.10	4.12	4.71	5.06
Tennessee	5.95	5.83	5.68	5.55	6.37	NA	6.11	6.36
Texas	4.12	4.44	4.75	4.32	5.37	4.66	4.91	4.99
Utah	3.93	3.93	3.76	4.36	4.35	4.54	3.92	4.39
Vermont	5.30	5.98	5.14	5.10	5.23	5.21	5.18	5.15
Virginia	6.14	5.44	5.63	5.82	6.33	6.41	6.45	6.37
Washington	NA	NA	NA	NA	NA	NA	4.73	4.78
West Virginia	NA	7.34	6.60	6.32	6.31	6.28	6.34	6.18
Wisconsin	4.44	4.16	4.75	5.24	4.96	5.12	5.35	5.46
Wyoming	NA	4.77	4.62	4.55	4.56	NA	3.93	5.52
Total	5.53	5.62	5.58	^R5.39	5.56	5.59	5.79	5.70

See footnotes at end of table.

Table 22. Average Price of Natural Gas Sold to Commercial Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	November	October	September	August	July	June	May	April
Alabama	6.77	7.40	7.53	7.44	7.54	7.16	6.79	7.05
Alaska	2.53	2.52	2.28	2.09	2.24	2.15	2.23	2.37
Arizona	5.82	5.82	5.81	5.33	5.21	5.20	5.18	5.08
Arkansas	5.47	5.77	5.56	5.19	5.33	5.39	5.15	4.91
California	7.04	6.65	5.84	4.96	5.86	6.27	5.29	6.05
Colorado	4.39	4.72	4.01	4.70	4.45	4.23	4.08	3.98
Connecticut	7.59	6.36	6.48	5.14	5.54	5.67	6.69	7.12
Delaware	6.88	7.46	7.15	8.54	7.81	7.30	6.74	6.53
District of Columbia	8.77	8.07	8.10	7.19	6.91	7.02	6.86	10.04
Florida	7.32	7.04	6.85	6.54	6.89	6.84	6.80	6.66
Georgia	5.53	6.22	6.49	7.02	7.63	7.71	6.33	5.60
Hawaii	59.38	14.59	14.46	14.93	14.91	15.21	15.09	15.18
Idaho	4.68	4.75	4.75	4.85	4.78	4.80	4.68	4.64
Illinois	5.26	5.79	6.22	6.08	5.66	5.53	4.91	4.62
Indiana	4.96	4.97	6.10	6.12	6.55	6.33	6.20	6.02
Iowa	5.46	5.91	7.37	6.39	5.64	5.99	4.83	4.30
Kansas	5.72	5.63	5.42	4.65	4.71	4.65	4.98	4.89
Kentucky	6.03	5.42	5.90	5.95	6.20	6.00	5.53	5.85
Louisiana	7.00	7.14	6.03	5.66	5.31	6.00	5.84	5.01
Maine	7.62	6.84	7.61	7.16	7.12	6.94	6.67	8.28
Maryland	7.12	7.19	6.90	6.32	6.09	6.53	6.06	6.11
Massachusetts	7.74	5.63	5.45	5.65	5.34	5.04	5.44	7.94
Michigan	5.03	5.49	6.07	6.06	5.90	5.53	4.90	4.70
Minnesota	5.20	5.11	5.20	4.59	4.63	4.64	4.02	3.86
Mississippi	5.75	5.77	4.93	4.90	4.54	4.93	5.23	5.08
Missouri	6.08	6.16	5.74	5.22	5.13	4.89	4.43	4.60
Montana	3.92	5.54	4.52	5.89	5.78	5.54	4.95	4.65
Nebraska	5.41	5.27	4.34	3.77	3.57	5.90	5.01	3.92
Nevada	5.42	5.43	5.18	5.18	5.07	5.03	5.08	5.14
New Hampshire	7.81	6.14	6.25	6.45	6.47	6.19	5.85	6.50
New Jersey	5.34	4.92	4.30	4.54	4.35	4.41	5.81	5.09
New Mexico	3.52	4.14	4.51	4.67	4.73	6.54	3.79	4.13
New York	6.58	5.62	5.09	4.86	4.40	5.32	5.95	6.15
North Carolina	6.70	6.29	6.46	6.44	6.44	5.99	6.10	6.50
North Dakota	5.14	5.15	5.11	4.58	5.11	4.76	4.38	3.69
Ohio	5.97	6.14	6.45	6.73	6.67	6.91	6.00	6.10
Oklahoma	5.17	5.38	4.87	4.80	4.79	5.00	4.83	4.67
Oregon	4.73	4.65	4.80	4.87	4.75	4.78	4.61	4.60
Pennsylvania	6.83	7.25	7.68	8.04	8.05	8.12	7.98	7.69
Rhode Island	8.02	8.00	8.77	9.12	8.96	8.77	8.07	8.46
South Carolina	7.22	6.52	3.49	6.45	6.31	6.33	6.33	7.05
South Dakota	5.22	5.50	6.51	5.22	5.44	6.09	4.77	4.04
Tennessee	6.27	6.33	6.05	5.99	6.09	6.00	5.38	5.07
Texas	5.27	4.96	4.72	4.54	4.41	4.68	4.48	4.18
Utah	4.65	3.78	3.99	4.02	3.82	3.60	3.37	3.09
Vermont	4.99	4.91	5.01	5.43	5.42	5.41	5.58	5.10
Virginia	6.42	6.55	6.58	6.56	6.66	6.08	6.29	6.27
Washington	4.81	4.87	4.90	5.29	4.93	4.63	4.80	4.19
West Virginia	6.24	6.76	7.54	8.13	8.42	7.68	6.72	6.34
Wisconsin	5.98	4.83	4.80	4.66	4.26	4.69	3.79	5.02
Wyoming	4.62	5.08	4.55	4.43	4.11	3.93	2.65	3.59
Total	5.85	5.73	5.57	5.43	5.35	5.64	5.39	5.46

^R Revised Data.^{NA} Not Available.

Notes: Data for 1997 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. Average prices for gas delivered to commercial consumers reflect onsystem sales prices only. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. See Table 25 for data on

onsystem sales expressed as a percentage of both total commercial and total industrial deliveries. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 23. Average Price of Natural Gas Sold to Industrial Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998				
				November	October	September	August	July
Alabama	3.23	3.63	3.55	3.26	3.18	2.95	3.06	3.15
Alaska	NA	1.54	1.42	NA	NA	NA	NA	1.22
Arizona	3.38	3.62	3.80	3.37	3.11	3.22	3.20	3.36
Arkansas	3.41	3.69	3.17	3.32	3.24	3.04	3.09	3.47
California	3.60	4.07	3.67	3.48	2.77	3.46	3.28	3.48
Colorado	NA	3.64	0.62	2.41	2.12	1.90	NA	NA
Connecticut	4.29	4.69	4.70	4.19	3.85	3.46	3.63	3.61
Delaware	4.18	4.36	4.27	3.85	3.75	4.39	5.12	4.32
District of Columbia	0.00	0.00	0.00	—	—	—	—	—
Florida	4.32	4.39	4.18	4.18	4.47	4.05	4.02	4.37
Georgia	4.91	4.59	4.35	3.01	3.86	4.51	5.06	3.85
Hawaii	0.00	0.00	0.00	—	—	—	—	—
Idaho ^a	3.09	2.76	2.84	3.16	3.02	2.94	3.32	2.97
Illinois	3.95	3.95	4.12	3.61	3.32	3.71	4.38	3.10
Indiana	NA	4.28	3.55	NA	NA	NA	NA	NA
Iowa	2.04	4.06	3.59	3.51	3.40	3.31	3.65	4.14
Kansas	NA	3.29	2.93	NA	2.76	2.06	^R 2.71	^R 2.78
Kentucky	3.78	4.13	3.79	3.24	3.71	3.66	3.71	3.61
Louisiana	NA	2.87	2.72	1.26	NA	1.85	1.98	2.30
Maine	NA	5.40	5.10	NA	4.22	3.92	3.80	4.17
Maryland	5.30	3.24	5.51	4.76	^R 4.11	^R 5.86	^R 4.57	^R 8.24
Massachusetts	NA	5.70	5.24	NA	4.34	NA	4.36	4.83
Michigan	3.99	4.02	3.85	3.60	4.29	4.67	5.21	4.77
Minnesota	2.84	3.28	2.83	2.82	2.67	2.18	2.51	2.84
Mississippi	NA	3.55	3.33	2.84	NA	3.24	NA	NA
Missouri	4.46	4.57	4.18	4.46	4.16	4.13	4.27	3.73
Montana	5.09	4.79	4.88	5.31	5.54	11.14	7.57	6.88
Nebraska	3.19	3.82	3.15	3.23	2.86	2.56	2.72	3.20
Nevada	4.80	7.75	4.93	4.53	4.39	4.35	4.46	5.86
New Hampshire	NA	4.77	4.64	NA	NA	3.67	NA	3.58
New Jersey	NA	3.76	3.74	NA	NA	NA	2.88	3.17
New Mexico	3.23	3.10	3.05	2.60	2.95	2.99	3.19	3.13
New York	NA	4.99	5.02	NA	NA	NA	NA	NA
North Carolina	3.94	4.63	4.24	3.90	3.63	3.55	3.62	3.60
North Dakota	2.85	3.03	2.82	2.64	2.51	2.11	2.53	2.85
Ohio	NA	4.94	4.29	4.69	NA	5.78	7.46	NA
Oklahoma	3.73	4.15	3.18	3.39	3.64	3.40	3.44	3.41
Oregon	NA	3.00	3.24	3.50	3.96	3.57	3.80	NA
Pennsylvania	4.27	4.61	4.15	4.10	3.98	4.04	3.88	3.94
Rhode Island	NA	2.21	4.28	3.68	3.93	3.08	2.98	3.59
South Carolina	3.24	3.69	3.69	3.17	3.11	2.93	2.47	3.37
South Dakota	3.31	4.06	3.22	3.17	3.27	3.38	3.17	3.21
Tennessee	NA	4.12	3.87	3.79	3.30	3.34	3.38	4.37
Texas	NA	2.78	2.45	2.18	NA	1.87	2.15	2.53
Utah	3.07	2.50	2.09	3.24	3.03	3.08	3.36	3.20
Vermont	2.82	3.06	3.47	2.30	2.84	2.74	2.77	2.78
Virginia	3.91	4.59	4.10	4.18	4.00	3.16	3.33	3.61
Washington	NA	3.16	2.55	NA	NA	NA	NA	NA
West Virginia	NA	2.91	2.75	NA	2.93	NA	NA	^R 3.02
Wisconsin	3.88	4.09	3.34	4.17	3.38	3.02	3.49	3.76
Wyoming	NA	3.47	3.13	3.79	3.79	3.80	NA	NA
Total	3.10	3.54	3.30	2.82	2.75	^R 2.63	2.73	2.99

See footnotes at end of table.

Table 23. Average Price of Natural Gas Sold to Industrial Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1998						1997	
	June	May	April	March	February	January	Total	December
Alabama	3.11	3.16	3.44	3.03	3.50	3.47	3.65	3.79
Alaska	1.40	1.43	1.42	1.45	1.52	1.56	1.54	1.56
Arizona	3.51	3.44	3.45	3.33	3.76	3.53	3.60	3.40
Arkansas	3.28	3.28	3.39	3.78	3.62	3.77	3.71	4.01
California	3.38	2.88	3.97	3.31	5.34	4.55	4.18	4.51
Colorado	NA	2.48	2.26	2.62	2.58	2.69	3.66	3.79
Connecticut	3.69	4.13	4.55	4.74	5.13	5.12	4.73	5.10
Delaware	4.35	4.32	4.63	3.79	4.08	4.22	4.40	4.72
District of Columbia	—	—	—	—	—	—	—	—
Florida	4.20	4.46	4.58	4.40	4.29	4.59	4.41	4.70
Georgia	4.90	5.30	5.15	5.18	5.37	5.63	4.56	4.22
Hawaii	—	—	—	—	—	—	10.79	—
Idaho ^a	3.10	3.09	3.10	3.25	3.02	3.06	2.76	2.77
Illinois	4.49	4.18	4.02	4.08	4.12	4.22	3.97	4.17
Indiana	4.53	4.51	NA	4.56	4.29	4.68	4.33	4.73
Iowa	^R 2.25	3.39	0.73	0.64	2.42	3.43	4.11	4.55
Kansas	3.11	3.31	3.56	3.61	3.67	3.91	3.32	3.61
Kentucky	3.48	3.21	3.85	3.79	4.51	4.59	4.19	4.85
Louisiana	2.43	2.62	2.19	2.89	2.22	2.90	2.87	2.91
Maine	4.10	4.70	6.02	6.02	6.02	6.02	5.55	7.19
Maryland	^R 5.60	^R 4.54	5.10	^R 5.88	^R 5.59	^R 7.46	3.25	3.76
Massachusetts	4.89	4.66	6.64	6.77	6.70	6.79	5.78	6.72
Michigan	4.32	4.01	3.81	3.61	4.11	3.90	4.02	4.02
Minnesota	^R 2.58	3.03	3.06	3.08	3.00	3.25	3.28	3.24
Mississippi	NA	NA	NA	NA	3.22	NA	3.55	3.60
Missouri	4.27	4.25	4.30	4.27	4.69	5.30	4.78	5.48
Montana	3.72	5.89	5.22	5.02	4.85	4.82	4.79	4.85
Nebraska	3.34	3.34	3.35	3.34	3.27	3.30	3.85	4.08
Nevada	5.81	5.94	5.84	6.00	6.06	5.90	7.77	7.98
New Hampshire	3.38	3.90	3.77	5.47	5.84	7.08	4.90	7.36
New Jersey	3.39	3.43	3.42	3.24	3.42	3.71	3.78	3.99
New Mexico	3.45	3.77	4.00	4.09	5.69	2.18	2.99	2.14
New York	3.92	NA	4.49	15.18	NA	NA	5.05	5.56
North Carolina	3.57	3.68	3.63	4.19	4.41	4.95	4.66	5.03
North Dakota	2.60	3.15	3.10	3.22	3.01	3.22	3.05	3.24
Ohio	5.05	4.98	5.21	5.67	5.06	5.62	4.93	4.84
Oklahoma	3.43	3.13	3.32	4.12	4.18	4.10	4.18	4.39
Oregon	3.77	3.75	NA	NA	3.73	3.67	3.03	3.32
Pennsylvania	4.09	4.05	4.40	4.57	4.55	4.80	4.61	4.62
Rhode Island	3.58	NA	3.86	4.06	4.25	4.59	4.33	3.77
South Carolina	3.21	3.31	3.42	3.53	3.38	3.67	3.72	4.00
South Dakota	3.54	3.44	3.37	3.38	3.25	3.30	4.02	3.72
Tennessee	3.50	3.54	3.64	3.59	3.98	NA	4.18	4.81
Texas	2.24	2.44	2.49	2.49	2.44	2.66	2.82	2.76
Utah	2.78	2.90	2.95	3.05	3.19	3.06	2.55	3.02
Vermont	2.78	2.87	2.86	2.94	3.01	3.06	3.07	3.11
Virginia	3.44	3.01	3.45	4.08	4.99	4.81	4.68	5.20
Washington	NA	NA	NA	NA	NA	NA	3.16	3.08
West Virginia	^R 2.88	^R 2.96	2.97	^R 2.90	^R 2.87	^R 2.78	2.91	2.87
Wisconsin	3.44	3.69	4.20	4.17	4.48	3.79	4.13	4.53
Wyoming	3.82	4.19	4.12	NA	NA	3.29	3.49	3.65
Total	^R2.96	3.10	3.22	3.41	3.52	3.68	3.59	3.79

See footnotes at end of table.

Table 23. Average Price of Natural Gas Sold to Industrial Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	November	October	September	August	July	June	May	April
Alabama	3.81	3.85	3.38	3.38	3.24	3.37	3.35	3.14
Alaska	1.55	1.54	1.57	1.56	1.56	1.48	1.44	1.53
Arizona	3.23	3.71	3.29	3.13	3.19	3.94	3.94	4.35
Arkansas	4.31	3.90	3.61	3.40	3.35	3.40	3.20	3.22
California	4.58	4.36	3.54	3.43	3.81	4.05	2.57	3.51
Colorado	4.91	4.07	3.31	3.15	3.02	2.99	3.18	2.99
Connecticut	4.94	4.33	4.06	3.85	3.92	4.01	4.21	4.44
Delaware	4.87	4.63	4.13	4.14	4.11	4.06	3.69	3.65
District of Columbia	—	—	—	—	—	—	—	—
Florida	4.96	4.78	4.56	4.41	4.11	4.19	4.13	4.20
Georgia	4.63	4.52	5.57	4.04	4.16	5.30	4.03	3.79
Hawaii	—	—	—	—	—	—	—	—
Idaho ^a	2.74	2.72	2.69	2.68	3.28	2.52	2.73	2.75
Illinois	4.80	3.77	3.23	3.78	3.50	2.67	2.53	3.46
Indiana	3.67	3.59	4.29	4.16	4.12	4.62	4.74	4.92
Iowa	4.53	4.41	3.89	3.51	4.10	3.36	3.95	3.13
Kansas	3.81	3.96	3.14	2.84	2.75	2.77	3.18	2.49
Kentucky	4.91	3.97	3.81	3.75	3.78	3.67	3.61	3.70
Louisiana	3.42	3.27	2.78	2.43	2.69	2.65	2.34	2.27
Maine	5.88	4.68	4.65	4.43	4.40	4.45	4.10	5.77
Maryland	3.64	2.99	3.33	3.07	3.68	3.20	3.22	13.80
Massachusetts	6.34	4.34	4.03	3.85	4.00	3.57	5.01	6.08
Michigan	4.07	4.33	3.99	4.35	4.41	4.23	4.07	3.95
Minnesota	3.87	3.83	3.10	2.77	2.78	2.75	2.72	2.60
Mississippi	4.12	3.93	3.43	3.23	3.15	3.27	3.12	3.04
Missouri	4.23	4.51	4.03	4.03	3.97	3.95	3.56	3.84
Montana	4.80	4.91	4.90	4.90	4.88	4.80	4.77	4.76
Nebraska	4.44	4.28	3.59	3.48	3.19	3.11	2.86	2.74
Nevada	9.55	11.41	9.10	7.31	6.98	7.39	7.66	5.72
New Hampshire	6.48	4.50	3.61	3.43	3.39	3.59	3.56	3.99
New Jersey	4.24	3.79	3.43	2.11	3.06	3.27	3.30	2.88
New Mexico	2.81	3.57	3.10	2.91	2.86	3.87	2.93	7.28
New York	5.29	4.69	3.47	3.69	3.82	3.93	4.27	4.66
North Carolina	4.98	4.07	4.24	4.16	3.95	3.59	3.96	4.08
North Dakota	3.64	3.84	3.16	3.46	2.97	2.85	2.29	2.24
Ohio	4.79	4.31	4.80	4.65	3.82	5.79	3.89	5.15
Oklahoma	4.50	4.22	3.59	3.46	3.44	3.41	2.83	3.17
Oregon	3.10	2.86	2.78	2.69	2.89	2.88	2.95	3.03
Pennsylvania	4.32	4.36	4.13	4.04	4.47	4.58	4.36	4.61
Rhode Island	2.92	2.49	3.08	2.19	2.13	1.64	1.94	1.09
South Carolina	4.31	4.02	3.27	3.29	3.44	3.36	3.30	3.25
South Dakota	4.37	4.65	4.17	3.97	4.50	4.09	3.55	3.12
Tennessee	4.72	4.47	3.95	3.51	3.18	3.77	3.50	3.53
Texas	3.54	3.33	2.69	2.32	2.42	2.49	2.33	2.05
Utah	2.90	2.73	2.54	2.73	2.63	2.21	2.21	2.25
Vermont	3.12	2.97	3.00	2.96	2.97	3.01	3.05	2.98
Virginia	4.73	3.92	4.32	4.32	4.53	4.18	4.47	2.15
Washington	3.38	2.86	2.69	2.71	2.87	2.90	3.03	2.83
West Virginia	2.88	2.97	2.93	2.82	2.91	2.72	2.81	2.49
Wisconsin	5.05	4.23	3.62	3.34	3.32	3.39	3.00	3.92
Wyoming	3.66	3.42	3.42	3.44	3.48	3.45	3.34	3.51
Total	4.07	3.69	3.25	2.90	3.06	3.10	2.96	3.02

^R Revised Data.^{NA} Not Available.

— Not Applicable.

Notes: Data for 1997 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. Average prices for gas delivered to industrial consumers reflect onsystem sales prices only. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. See Table 25 for data on

onsystem sales expressed as a percentage of both total commercial and total industrial deliveries. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 24. Average Price of Natural Gas Delivered to Electric Utility^a Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet)

State	YTD 1998	YTD 1997	YTD 1996	1998				
				October	September	August	July	June
Alabama	2.55	2.73	2.72	2.62	2.46	2.50	2.63	2.49
Alaska	1.82	1.72	1.42	1.72	1.73	1.76	1.80	1.87
Arizona	2.40	2.98	2.91	2.11	2.33	2.28	2.41	2.79
Arkansas	2.28	2.59	2.45	2.25	2.15	2.05	2.49	2.33
California	2.77	3.05	2.58	2.56	2.50	2.83	2.92	2.70
Colorado	2.83	3.18	1.89	2.71	2.82	3.31	2.77	2.83
Connecticut	2.42	2.47	2.68	2.07	2.22	2.34	2.46	2.38
Delaware	2.80	3.12	3.17	2.66	2.41	2.66	3.47	3.27
District of Columbia	0.00	0.00	0.00	—	—	—	—	—
Florida	2.33	2.50	3.02	2.30	2.18	2.18	2.27	2.31
Georgia	3.18	2.73	2.99	3.80	4.00	2.82	3.18	2.91
Hawaii	0.00	0.00	0.00	—	—	—	—	—
Idaho	0.00	0.00	0.00	—	—	—	—	—
Illinois	2.25	2.47	2.56	2.20	2.01	1.95	2.27	2.37
Indiana	2.86	3.21	3.32	3.23	2.74	2.58	2.80	2.95
Iowa	2.98	3.23	3.07	2.93	2.91	2.80	3.01	2.86
Kansas	2.12	2.34	2.19	2.03	1.87	1.99	2.28	2.14
Kentucky	3.11	3.24	3.38	2.85	2.42	2.43	2.86	3.68
Louisiana	2.39	2.75	2.84	2.25	2.12	2.17	2.59	2.40
Maine	0.00	0.00	0.00	—	—	—	—	—
Maryland	2.75	2.92	3.04	3.13	2.53	2.49	2.84	2.93
Massachusetts	2.81	3.03	2.95	2.28	2.13	2.35	2.62	2.24
Michigan	1.23	0.79	0.76	1.46	1.67	1.38	1.34	1.29
Minnesota	2.40	2.50	2.20	2.32	2.00	2.41	2.48	2.42
Mississippi	2.35	2.70	2.86	2.21	2.16	2.16	2.47	2.36
Missouri	2.22	2.63	2.52	2.14	2.13	1.95	2.39	2.41
Montana	3.99	7.88	5.77	1.30	1.02	4.99	2.47	2.59
Nebraska	2.36	2.50	1.94	2.10	1.93	2.49	2.62	2.37
Nevada	2.39	2.14	2.09	2.33	2.42	2.42	2.34	2.73
New Hampshire	0.00	2.71	0.00	—	—	—	—	—
New Jersey	2.73	3.01	2.92	2.74	2.56	2.46	2.92	2.73
New Mexico	2.22	2.61	2.11	2.02	1.90	2.03	2.32	2.20
New York	2.56	2.79	2.84	2.30	2.21	2.29	2.63	2.51
North Carolina	2.72	3.15	3.09	3.00	2.53	2.55	2.92	2.78
North Dakota	0.00	3.81	3.06	—	—	—	—	—
Ohio	3.48	3.62	3.14	3.88	4.09	3.93	2.98	2.79
Oklahoma	2.48	2.88	2.88	2.41	2.16	2.07	2.52	2.41
Oregon	1.43	1.50	1.30	1.63	1.48	1.56	1.46	1.31
Pennsylvania	3.15	2.80	2.82	2.50	3.74	2.63	3.18	2.32
Rhode Island	3.38	3.28	2.18	—	—	3.40	3.38	3.40
South Carolina	3.60	4.15	4.11	3.21	3.37	3.53	3.58	3.92
South Dakota	1.77	0.00	2.36	—	1.77	—	—	—
Tennessee	0.00	0.00	1.20	—	—	—	—	—
Texas	2.31	2.64	2.42	2.16	2.05	2.11	2.46	2.34
Utah	2.06	2.11	2.74	2.20	1.95	2.04	2.15	1.94
Vermont	2.90	3.16	3.01	2.86	2.54	2.67	3.09	2.81
Virginia	2.98	2.96	3.01	3.09	2.76	2.60	3.02	2.93
Washington	2.79	NA	4.64	—	—	—	—	—
West Virginia	3.64	3.91	3.53	1.20	2.94	3.85	6.31	2.62
Wisconsin	2.68	3.01	2.79	2.42	2.31	2.49	2.80	2.64
Wyoming	8.44	12.40	10.92	5.33	6.64	67.70	8.23	7.66
Total	2.38	2.70	2.59	2.22	2.16	2.21	2.50	2.40

See footnotes at end of table.

Table 24. Average Price of Natural Gas Delivered to Electric Utility^a Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1998					1997		
	May	April	March	February	January	Total	December	November
Alabama	2.62	2.69	2.55	2.44	2.86	2.86	2.90	3.70
Alaska	1.84	1.84	1.85	1.88	1.85	1.74	1.84	1.84
Arizona	3.20	2.82	3.07	2.56	2.84	2.99	2.86	4.00
Arkansas	2.33	2.56	2.36	2.16	2.25	2.69	2.24	3.12
California	2.94	2.71	2.85	2.79	2.94	3.08	2.96	3.64
Colorado	2.56	2.53	2.61	2.65	3.01	3.16	2.93	3.90
Connecticut	2.56	2.70	2.79	2.63	2.74	2.47	2.74	3.38
Delaware	1.34	1.41	4.15	3.21	5.34	3.15	4.28	2.58
District of Columbia	—	—	—	—	—	—	—	—
Florida	2.31	2.68	2.64	2.49	2.25	2.51	2.52	3.29
Georgia	3.72	1.94	1.72	2.88	2.35	2.72	4.97	3.33
Hawaii	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—
Illinois	2.37	2.55	2.34	2.28	2.25	2.55	2.48	3.31
Indiana	2.98	3.37	3.25	2.64	3.84	3.23	3.67	4.03
Iowa	3.16	3.14	3.35	3.00	3.36	3.41	2.99	4.16
Kansas	2.20	2.40	2.36	1.97	3.35	2.53	3.33	3.02
Kentucky	3.59	5.25	4.04	3.58	3.46	3.45	3.47	4.24
Louisiana	2.52	2.66	2.51	2.47	2.61	2.79	2.86	3.61
Maine	—	—	—	—	—	—	—	—
Maryland	2.96	3.33	3.18	3.32	3.75	2.97	3.61	4.10
Massachusetts	2.86	3.66	3.64	2.95	3.16	3.11	3.57	4.08
Michigan	1.20	1.35	0.75	0.84	0.51	0.79	0.47	1.08
Minnesota	2.74	2.76	2.83	2.62	2.63	2.44	2.99	3.72
Mississippi	2.41	2.56	2.46	2.46	2.48	2.72	2.80	3.51
Missouri	2.31	2.56	2.52	2.82	2.63	2.81	2.77	3.52
Montana	5.34	1.40	12.33	8.49	4.61	NA	4.18	6.84
Nebraska	2.40	1.98	2.72	4.47	2.72	2.86	4.94	4.29
Nevada	2.44	2.31	2.02	2.37	2.41	2.18	2.16	2.80
New Hampshire	—	—	—	—	—	2.71	—	—
New Jersey	2.77	3.05	2.88	2.83	2.98	3.06	3.20	4.19
New Mexico	2.33	2.41	2.39	2.30	2.43	2.64	2.55	3.02
New York	2.64	2.87	2.96	2.95	3.00	2.88	3.38	3.83
North Carolina	2.89	3.37	4.03	—	3.02	3.22	3.60	4.95
North Dakota	—	—	—	—	—	3.43	—	—
Ohio	3.06	4.01	4.14	3.16	3.32	3.72	4.13	4.12
Oklahoma	2.52	2.88	2.62	2.72	4.47	2.97	2.89	4.05
Oregon	1.50	1.36	1.23	1.03	1.14	1.49	1.48	1.44
Pennsylvania	5.37	5.94	2.69	2.64	2.79	3.02	3.16	3.69
Rhode Island	3.43	3.45	3.19	3.24	3.48	3.35	3.78	4.05
South Carolina	3.41	3.44	3.58	3.53	4.05	4.07	4.46	4.00
South Dakota	—	—	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—	—	—
Texas	2.38	2.52	2.43	2.41	2.49	2.69	2.74	3.33
Utah	—	—	—	—	—	2.09	—	—
Vermont	3.03	3.08	2.81	2.77	3.02	3.16	3.42	4.21
Virginia	2.99	4.46	3.34	3.78	3.05	2.93	2.54	4.09
Washington	—	5.59	3.86	4.11	1.64	NA	5.73	5.16
West Virginia	3.58	—	—	—	5.59	3.35	3.31	3.00
Wisconsin	2.95	3.13	2.75	2.91	2.90	3.17	2.92	4.11
Wyoming	11.70	4.77	10.42	8.72	5.39	NA	1.63	3.43
Total	2.46	2.59	2.54	2.51	2.64	2.74	2.77	3.41

See footnotes at end of table.

Table 24. Average Price of Natural Gas Delivered to Electric Utility^a Consumers, by State, 1996-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	October	September	August	July	June	May	April	March
Alabama	3.75	2.88	2.56	2.51	2.65	2.44	3.21	2.12
Alaska	1.85	1.88	1.69	1.87	1.79	1.64	1.63	1.55
Arizona	3.11	3.37	2.63	2.20	3.03	3.11	4.47	2.85
Arkansas	3.12	2.89	2.64	2.38	2.40	1.92	1.98	1.60
California	3.40	3.14	2.77	2.68	2.77	2.60	2.66	3.04
Colorado	2.37	2.42	2.77	4.07	2.31	6.20	2.47	2.26
Connecticut	2.76	2.37	2.35	2.33	2.26	2.22	2.22	2.45
Delaware	5.69	3.40	3.00	2.83	1.95	3.68	2.53	2.61
District of Columbia	—	—	—	—	—	—	—	—
Florida	3.21	3.03	2.50	2.30	2.33	2.09	2.26	2.05
Georgia	3.94	3.07	2.27	2.75	3.13	2.64	2.64	3.34
Hawaii	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—
Illinois	3.13	2.82	2.39	2.31	2.37	2.29	2.12	2.00
Indiana	5.25	3.67	3.39	2.77	2.99	3.06	2.88	2.74
Iowa	3.81	3.28	3.12	2.70	3.28	2.89	2.79	2.73
Kansas	3.06	2.70	2.13	2.06	2.11	2.14	2.00	1.80
Kentucky	4.00	3.25	2.92	2.87	2.96	2.83	3.13	3.20
Louisiana	3.40	3.03	2.60	2.44	2.65	2.45	2.18	2.10
Maine	—	—	—	—	—	—	—	—
Maryland	3.91	3.42	2.89	2.35	2.69	2.98	3.14	4.18
Massachusetts	4.10	3.21	2.87	2.81	2.92	2.84	2.54	2.64
Michigan	1.58	0.73	0.58	0.96	0.89	0.42	0.61	0.69
Minnesota	3.67	3.56	2.43	2.43	2.34	2.30	2.34	2.17
Mississippi	3.35	3.02	2.61	2.46	2.52	2.37	2.27	2.08
Missouri	3.35	2.94	2.51	2.39	2.44	2.74	2.77	2.26
Montana	2.98	64.31	1.92	1.37	9.35	13.57	2.87	4.08
Nebraska	3.21	2.98	2.49	2.32	2.00	1.89	1.89	2.29
Nevada	2.64	2.39	2.02	1.98	2.09	1.99	2.02	2.05
New Hampshire	—	2.85	2.55	2.74	2.72	2.68	—	—
New Jersey	4.23	3.42	2.87	2.80	2.85	2.76	2.69	2.57
New Mexico	3.05	2.82	2.47	2.46	2.38	2.39	2.07	2.01
New York	3.37	2.89	2.60	2.58	2.65	2.62	2.53	2.56
North Carolina	3.68	3.38	3.09	3.12	2.87	2.64	2.79	—
North Dakota	—	—	—	4.00	—	4.14	3.98	2.93
Ohio	4.00	4.35	4.28	3.10	3.20	4.13	4.06	4.03
Oklahoma	3.46	3.20	2.49	2.37	2.63	2.91	2.57	2.57
Oregon	1.45	1.49	1.49	1.35	1.57	—	—	1.40
Pennsylvania	3.65	2.99	2.81	2.54	3.04	2.57	2.31	2.22
Rhode Island	4.02	3.32	3.04	2.98	3.21	3.09	2.82	2.90
South Carolina	4.10	4.54	4.54	4.35	3.51	3.84	3.87	2.84
South Dakota	—	—	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—	—	—
Texas	3.15	2.85	2.50	2.39	2.46	2.34	2.14	2.12
Utah	2.00	2.66	1.79	1.86	4.82	—	—	—
Vermont	3.96	3.23	2.90	2.95	3.06	2.83	2.27	2.61
Virginia	4.73	3.77	2.95	2.58	2.93	3.05	2.71	2.76
Washington	4.21	8.62	0.67	4.83	3.83	7.21	5.93	NA
West Virginia	3.29	3.41	3.71	3.79	3.23	3.22	3.63	3.82
Wisconsin	3.94	3.09	2.85	3.12	2.81	2.58	2.46	2.33
Wyoming	4.88	7.74	34.13	20.44	4.00	11.82	24.02	22.85
Total	3.24	2.96	2.53	2.44	2.52	2.41	2.30	2.29

^a Includes all steam electric utility generating plants with a combined capacity of 50 megawatts or greater.

NA Not Available.

— Not Applicable.

Notes: Data for 1997 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District

of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Sources: Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1998

State	YTD 1998		YTD 1997		YTD 1996		1998	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	November	
							Commercial	Industrial
Alabama	69.6	15.4	62.5	24.3	81.2	22.6	66.0	15.7
Alaska	57.5	NA	54.5	97.6	63.6	63.9	58.6	NA
Arizona	84.8	33.4	84.4	24.2	85.3	19.7	82.6	35.2
Arkansas	NA	9.5	94.0	10.5	94.9	12.9	56.0	11.3
California	43.1	10.7	50.1	8.9	54.5	10.3	33.6	10.8
Colorado	NA	NA	92.7	23.6	93.0	21.3	94.9	0.1
Connecticut	69.6	56.0	82.7	67.0	86.8	85.0	76.2	58.2
Delaware	100.0	21.5	100.0	31.3	100.0	37.9	100.0	22.7
District of Columbia	51.2	—	54.8	—	71.4	—	49.8	—
Florida	96.1	4.0	97.6	10.2	97.2	12.9	94.6	3.3
Georgia	82.3	12.7	88.8	26.2	94.2	32.3	75.3	9.5
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	86.2	2.5	86.0	2.0	86.4	1.3	83.7	2.2
Illinois	47.4	8.2	54.6	11.5	53.5	12.6	44.1	9.1
Indiana	NA	NA	89.2	16.1	96.1	16.1	NA	NA
Iowa	81.2	10.0	88.0	8.6	87.8	8.7	82.9	10.1
Kansas	68.4	NA	70.3	9.8	71.7	7.7	59.9	NA
Kentucky	86.3	14.0	89.8	19.4	90.6	27.5	87.0	17.2
Louisiana	NA	NA	95.8	10.3	98.3	NA	76.4	15.5
Maine	NA	NA	100.0	91.6	100.0	91.1	NA	NA
Maryland	37.7	5.9	69.2	9.0	91.7	10.8	54.1	8.7
Massachusetts	NA	NA	61.9	20.3	75.5	26.4	59.7	NA
Michigan	57.4	6.4	63.4	8.7	66.4	8.8	56.3	8.7
Minnesota	95.2	41.0	98.9	40.3	96.3	40.9	95.6	37.2
Mississippi	NA	NA	94.8	39.5	97.4	41.5	96.0	34.8
Missouri	77.9	17.4	79.4	21.7	81.8	24.2	73.7	17.7
Montana	NA	2.6	91.3	3.0	91.4	3.3	78.1	2.3
Nebraska	NA	17.0	73.8	27.2	69.1	20.0	NA	16.9
Nevada	71.2	4.5	71.1	1.8	74.1	1.6	64.6	29.5
New Hampshire	NA	NA	92.2	50.2	97.1	56.3	NA	NA
New Jersey	NA	NA	56.9	46.9	73.8	54.9	NA	NA
New Mexico	60.2	13.2	73.3	28.8	63.6	2.5	66.6	11.0
New York	NA	NA	64.3	8.4	NA	9.9	NA	NA
North Carolina	88.9	25.3	94.2	46.5	96.2	56.2	85.2	27.1
North Dakota	83.6	13.8	89.5	18.8	87.5	24.2	86.5	19.3
Ohio	NA	NA	65.3	5.5	71.4	7.0	49.7	2.5
Oklahoma	73.2	3.4	81.8	4.6	84.0	6.5	65.2	3.6
Oregon	NA	NA	98.5	16.3	98.3	18.2	99.0	15.6
Pennsylvania	NA	13.3	63.5	14.1	72.0	18.1	61.0	13.5
Rhode Island	NA	NA	82.6	18.0	92.1	17.4	53.4	41.9
South Carolina	97.7	86.9	98.9	87.1	98.9	85.4	96.4	86.6
South Dakota	84.0	31.5	82.9	23.1	82.7	24.7	84.4	35.2
Tennessee	NA	NA	92.0	38.6	94.2	47.5	81.5	25.0
Texas	54.5	14.2	60.5	17.5	NA	20.3	64.0	13.5
Utah	82.0	8.8	82.7	9.0	81.4	8.9	82.2	10.9
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	70.3	12.7	79.0	12.3	84.9	17.5	69.6	19.3
Washington	NA	NA	82.5	24.0	85.6	24.2	NA	NA
West Virginia	NA	NA	53.9	12.3	54.2	14.3	38.6	NA
Wisconsin	69.2	19.1	81.9	27.1	91.6	36.6	69.9	20.5
Wyoming	NA	NA	82.8	2.5	89.6	2.9	NA	2.2
Total	63.7	14.6	70.5	17.8	77.6	19.3	61.9	15.4

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1998 — Continued

State	1998							
	October		September		August		July	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	63.6	14.7	69.1	14.2	72.0	12.9	71.8	14.5
Alaska	56.1	100.0	54.9	NA	57.0	NA	56.0	96.5
Arizona	79.5	36.6	83.4	33.3	82.7	32.6	84.1	32.8
Arkansas	45.5	11.4	44.2	10.4	46.1	8.7	48.8	7.7
California	32.4	11.6	28.4	9.3	24.6	8.2	31.4	9.5
Colorado	85.2	0.2	85.8	—	91.3	NA	NA	NA
Connecticut	61.4	54.1	55.3	59.6	58.1	51.5	62.4	57.1
Delaware	100.0	17.8	100.0	17.5	100.0	11.3	100.0	17.8
District of Columbia	37.5	—	36.5	—	35.4	—	40.4	—
Florida	95.1	3.2	96.5	3.9	96.3	6.1	96.0	4.2
Georgia	72.2	9.4	71.1	14.4	68.9	7.0	68.9	5.1
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	74.9	2.6	80.3	2.5	83.1	3.5	83.9	2.7
Illinois	40.5	8.2	43.2	7.0	37.9	6.0	35.4	4.9
Indiana	NA	NA	NA	NA	NA	NA	NA	NA
Iowa	76.2	7.2	76.8	6.4	79.7	5.2	69.6	5.3
Kansas	58.5	5.4	55.4	13.8	59.9	^R 11.2	58.8	^R 13.5
Kentucky	82.3	13.0	81.6	12.0	78.9	11.6	76.4	15.2
Louisiana	NA	NA	68.4	8.8	69.5	7.5	69.7	6.9
Maine	100.0	86.8	100.0	87.1	100.0	85.7	100.0	84.1
Maryland	^R 25.6	^R 7.9	^R 23.1	^R 3.5	^R 22.7	^R 7.2	^R 22.2	^R 2.7
Massachusetts	47.6	26.5	NA	NA	51.3	18.1	48.4	16.8
Michigan	45.9	5.1	41.1	5.0	35.9	3.8	38.1	4.4
Minnesota	97.5	35.5	98.3	78.1	98.1	36.9	97.2	34.8
Mississippi	NA	NA	^R 93.8	27.1	^R 96.2	NA	94.3	NA
Missouri	65.7	12.3	69.2	12.7	43.6	12.2	65.6	16.4
Montana	73.9	1.6	68.2	0.9	73.4	1.2	69.1	0.7
Nebraska	80.1	15.9	75.1	40.8	81.5	10.4	65.6	5.7
Nevada	63.7	27.4	56.6	20.7	56.4	19.1	66.3	4.0
New Hampshire	^R 93.1	NA	91.9	21.5	NA	NA	89.1	34.9
New Jersey	NA	NA	NA	NA	50.0	33.4	47.4	25.6
New Mexico	52.4	7.9	45.9	12.9	45.9	15.1	46.7	17.9
New York	NA	NA	NA	NA	45.7	NA	49.6	NA
North Carolina	80.3	21.1	82.3	18.0	83.8	21.3	83.3	26.4
North Dakota	^R 81.1	^R 21.5	^R 68.6	^R 13.4	67.7	^R 8.3	80.8	^R 11.0
Ohio	NA	NA	41.7	1.2	35.3	0.8	NA	NA
Oklahoma	57.4	1.8	57.9	1.8	56.4	1.8	55.4	2.1
Oregon	98.4	12.2	98.7	12.0	98.7	13.4	98.9	NA
Pennsylvania	54.4	11.4	57.4	12.1	NA	11.6	51.4	12.3
Rhode Island	49.2	34.6	49.3	33.7	100.0	34.2	48.5	31.2
South Carolina	96.4	87.5	96.7	88.3	96.8	88.1	97.4	87.5
South Dakota	95.7	33.9	73.5	20.8	74.8	17.1	75.4	22.5
Tennessee	68.2	14.9	66.7	19.9	63.0	21.3	63.7	20.3
Texas	47.7	15.1	36.5	15.8	34.2	14.7	48.8	12.1
Utah	80.2	10.2	77.6	9.2	71.6	8.7	70.7	7.5
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	61.6	10.7	57.6	8.5	50.8	13.2	69.4	8.4
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	29.7	8.1	28.9	NA	25.6	NA	7.6	^R 96.9
Wisconsin	67.7	16.7	35.9	15.4	48.0	12.3	45.1	12.6
Wyoming	82.5	2.0	83.8	2.5	91.8	NA	NA	NA
Total	^R 54.8	^R 14.3	49.4	14.5	^R 46.6	13.6	^R 51.0	12.7

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1998 — Continued

State	1998							
	June		May		April		March	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	74.7	14.5	35.4	13.3	80.2	14.8	77.8	17.4
Alaska	53.6	100.0	55.9	100.0	57.4	100.0	57.6	100.0
Arizona	86.2	33.8	83.3	35.8	84.9	32.7	86.7	34.0
Arkansas	NA	9.0	88.7	9.0	89.5	9.1	93.9	10.2
California	52.9	11.2	48.3	11.7	52.7	10.9	71.1	16.5
Colorado	91.8	NA	95.0	1.0	95.8	0.8	96.0	1.2
Connecticut	61.2	52.9	76.3	55.7	62.3	61.9	71.2	59.4
Delaware	100.0	19.3	100.0	19.5	100.0	23.3	100.0	27.9
District of Columbia	41.9	—	47.7	—	52.5	—	60.1	—
Florida	96.6	4.3	96.7	3.5	96.8	4.5	96.2	4.4
Georgia	79.0	15.1	82.0	15.7	85.5	13.4	87.5	17.2
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	85.3	1.8	85.4	2.2	86.4	2.2	88.1	2.0
Illinois	45.8	5.2	34.8	6.8	44.3	9.1	55.3	10.6
Indiana	NA	4.2	76.7	6.2	NA	NA	88.6	12.3
Iowa	70.3	^R 4.9	87.3	5.4	82.8	19.9	72.1	22.8
Kansas	54.2	10.7	68.5	8.1	69.5	5.6	76.9	5.5
Kentucky	82.6	13.8	84.2	14.7	85.7	14.7	90.0	13.1
Louisiana	NA	7.0	96.5	7.3	98.1	7.2	58.2	9.8
Maine	100.0	87.9	100.0	84.1	100.0	97.9	100.0	97.9
Maryland	^R 25.2	^R 3.8	^R 27.8	^R 6.7	^R 32.2	^R 2.3	^R 45.7	^R 8.3
Massachusetts	46.3	NA	52.8	28.8	60.0	27.5	65.5	29.0
Michigan	40.8	4.8	42.2	5.9	58.3	9.6	64.3	12.1
Minnesota	98.2	^R 41.1	98.5	35.1	96.1	38.9	96.2	48.8
Mississippi	94.9	NA	93.6	NA	93.3	NA	89.6	NA
Missouri	69.4	13.0	75.7	14.0	82.0	17.4	83.3	21.5
Montana	75.3	4.4	NA	1.2	79.4	2.2	83.1	3.5
Nebraska	66.3	13.5	74.0	14.8	71.5	21.3	77.3	24.0
Nevada	70.9	4.6	71.9	4.8	73.2	5.8	75.9	7.1
New Hampshire	NA	32.7	94.3	38.9	96.2	47.0	96.1	39.1
New Jersey	51.5	27.7	46.0	26.4	55.2	29.2	62.4	29.5
New Mexico	39.7	13.9	48.8	10.0	57.3	6.5	66.7	1.5
New York	47.4	6.9	NA	NA	58.1	10.1	NA	10.1
North Carolina	82.5	24.3	86.7	26.9	90.6	31.2	91.1	26.6
North Dakota	82.1	^R 10.4	79.2	^R 6.1	80.0	^R 12.3	87.0	^R 17.0
Ohio	44.7	1.3	41.4	1.5	53.9	2.7	60.1	3.2
Oklahoma	63.6	2.2	70.4	2.9	75.0	4.9	77.7	5.2
Oregon	98.9	14.9	98.8	15.0	NA	NA	NA	NA
Pennsylvania	54.9	12.7	59.4	13.2	NA	13.3	57.7	14.2
Rhode Island	53.3	33.4	58.6	NA	NA	41.2	64.7	49.9
South Carolina	97.4	88.2	98.2	87.7	98.4	86.0	98.2	84.9
South Dakota	72.8	24.9	65.9	15.8	93.7	56.2	85.6	37.9
Tennessee	66.6	23.3	77.4	23.9	75.8	29.3	93.1	28.1
Texas	63.8	15.2	55.9	14.1	59.8	14.5	61.3	15.2
Utah	75.6	9.1	73.7	8.9	82.5	7.9	81.2	8.6
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	66.8	9.3	70.0	13.0	70.9	11.2	73.4	19.2
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	NA	^R 8.2	29.0	^R 8.5	50.3	5.8	51.9	^R 6.1
Wisconsin	52.4	15.5	53.8	15.1	72.9	19.3	77.6	23.4
Wyoming	NA	2.3	89.8	1.8	92.1	3.4	87.4	NA
Total	^R 59.6	^R 14.0	^R 60.0	13.9	^R 66.7	15.0	^R 71.5	^R 16.6

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1998 — Continued

State	1998				1997			
	February		January		Total		December	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	80.1	17.8	76.7	19.4	64.7	24.6	80.9	27.9
Alaska	60.0	100.0	59.9	100.0	54.5	97.8	54.2	100.0
Arizona	87.2	27.7	86.9	32.3	84.6	25.1	85.2	33.0
Arkansas	95.3	10.9	95.5	10.5	94.2	10.5	95.9	10.4
California	54.3	8.7	58.1	11.0	50.7	8.9	52.9	9.3
Colorado	95.2	1.2	95.4	2.5	92.8	23.6	93.0	23.7
Connecticut	78.2	57.8	78.4	61.0	81.9	66.4	77.0	61.7
Delaware	100.0	28.6	100.0	26.4	100.0	31.0	100.0	28.1
District of Columbia	59.0	—	60.2	—	54.9	100.0	55.9	100.0
Florida	96.3	4.0	96.3	4.5	97.5	10.0	96.0	8.4
Georgia	90.3	16.7	88.7	16.5	89.1	26.7	91.6	32.7
Hawaii	100.0	—	100.0	—	100.0	100.0	100.0	100.0
Idaho	88.7	3.0	90.0	2.5	86.1	2.0	86.6	2.0
Illinois	50.4	9.8	53.7	10.7	54.3	11.5	52.1	11.9
Indiana	84.6	11.1	85.7	11.2	89.8	16.0	94.1	15.4
Iowa	88.7	7.1	87.4	7.4	88.2	8.6	89.3	9.3
Kansas	73.1	5.3	71.5	5.1	70.7	9.5	73.3	7.5
Kentucky	86.5	17.2	90.0	12.3	90.0	19.2	91.3	17.6
Louisiana	60.9	6.0	74.1	5.4	95.9	10.1	96.5	7.9
Maine	100.0	97.9	100.0	97.9	100.0	91.4	100.0	88.7
Maryland	^R 49.5	^R 10.6	^R 47.1	^R 3.4	67.1	7.4	52.7	1.1
Massachusetts	61.4	32.5	64.3	30.3	62.6	20.2	68.5	19.2
Michigan	65.2	12.6	69.5	13.5	63.7	9.0	65.6	11.8
Minnesota	93.3	37.4	91.9	45.0	98.8	40.4	98.5	40.9
Mississippi	94.8	38.5	95.3	NA	94.8	39.6	95.0	41.1
Missouri	85.4	24.0	85.2	23.7	79.9	21.8	82.6	23.3
Montana	83.1	4.3	88.3	4.7	91.4	3.1	92.8	3.7
Nebraska	78.0	23.2	79.9	30.1	74.2	27.0	77.2	25.6
Nevada	79.8	15.3	77.3	7.2	71.4	1.8	72.7	2.1
New Hampshire	96.2	37.2	96.4	30.4	92.4	48.8	93.9	32.4
New Jersey	62.1	34.6	59.4	31.7	56.2	47.0	52.0	49.0
New Mexico	63.8	1.8	71.1	8.2	74.6	5.7	81.5	7.8
New York	NA	NA	NA	NA	64.7	8.5	67.8	10.3
North Carolina	93.1	27.3	93.4	27.6	94.4	45.5	95.7	35.7
North Dakota	84.9	^R 17.1	89.1	^R 17.6	88.9	18.5	84.4	15.3
Ohio	60.2	4.7	60.5	4.5	65.6	5.7	67.1	7.3
Oklahoma	83.2	5.2	81.1	6.3	81.8	4.7	81.8	5.4
Oregon	99.2	15.3	99.3	19.7	98.5	16.3	98.4	16.0
Pennsylvania	57.2	15.2	58.7	16.3	63.6	14.2	63.9	15.3
Rhode Island	71.6	38.5	64.5	39.7	80.5	17.5	64.0	11.4
South Carolina	98.4	85.4	98.1	85.8	98.8	86.9	98.0	84.7
South Dakota	85.7	45.9	86.5	45.2	83.3	24.1	86.0	34.2
Tennessee	87.8	25.5	NA	NA	92.2	38.3	92.9	35.3
Texas	71.6	15.5	68.3	12.3	61.4	17.3	68.3	14.6
Utah	89.1	8.5	85.7	7.8	83.3	8.9	86.1	8.2
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	76.7	14.6	74.4	18.7	77.9	13.0	71.3	19.4
Washington	NA	NA	NA	NA	84.1	23.5	93.4	19.3
West Virginia	55.5	^R 6.1	56.0	^R 6.4	54.6	12.2	58.9	11.7
Wisconsin	80.3	23.8	85.4	26.0	82.1	27.1	83.1	26.6
Wyoming	80.3	NA	NA	1.5	84.2	2.5	96.2	2.7
Total	^R 70.9	^R 15.4	^R 72.0	^R 15.1	70.8	17.7	72.8	17.2

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1998 — Continued

State	1997							
	November		October		September		August	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	69.1	26.4	51.0	24.5	40.8	24.3	31.8	24.7
Alaska	51.9	100.0	52.2	100.0	49.9	100.0	45.0	92.8
Arizona	83.2	31.2	81.1	30.2	83.9	29.5	78.7	29.3
Arkansas	90.4	11.2	92.6	9.7	91.3	8.3	91.8	7.3
California	49.4	7.4	41.9	6.1	41.0	8.6	41.7	7.2
Colorado	89.8	25.1	86.9	28.3	90.2	24.6	83.1	23.6
Connecticut	71.1	65.9	68.6	65.9	75.0	64.2	80.2	60.8
Delaware	100.0	28.0	100.0	29.9	100.0	27.7	100.0	28.4
District of Columbia	60.4	100.0	44.5	100.0	35.5	100.0	38.8	100.0
Florida	96.4	8.1	97.5	8.8	97.8	8.9	97.9	9.3
Georgia	88.6	27.6	85.6	30.8	82.9	15.5	81.9	26.1
Hawaii	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Idaho	83.2	1.8	76.4	1.5	82.5	1.7	82.9	1.4
Illinois	52.5	9.4	50.4	9.1	47.7	12.1	40.3	6.2
Indiana	96.0	22.6	93.9	16.1	87.2	10.3	86.8	9.5
Iowa	85.0	13.4	80.1	11.5	77.9	6.7	85.1	6.7
Kansas	66.0	9.9	73.6	9.9	57.3	10.9	52.2	11.9
Kentucky	89.9	18.7	89.9	19.5	84.9	16.3	80.3	14.4
Louisiana	95.1	9.3	94.7	9.9	94.3	9.0	95.1	9.9
Maine	100.0	91.4	100.0	88.4	100.0	86.7	100.0	87.6
Maryland	64.7	3.3	51.8	7.0	48.6	2.7	50.4	6.4
Massachusetts	62.9	21.0	48.7	16.8	43.8	16.6	41.3	13.6
Michigan	64.8	9.5	54.2	4.0	39.7	2.7	40.7	3.4
Minnesota	99.1	42.9	98.6	38.7	97.7	42.0	98.2	34.8
Mississippi	94.0	38.0	91.2	40.2	91.0	42.9	93.6	38.6
Missouri	78.3	23.8	68.6	19.7	68.3	22.6	68.4	17.0
Montana	90.5	2.8	88.1	2.3	85.7	1.9	87.5	1.9
Nebraska	72.3	41.2	50.0	22.2	63.2	26.5	69.2	18.6
Nevada	67.9	1.6	65.9	1.2	63.0	1.1	63.2	1.6
New Hampshire	89.1	34.2	85.7	44.2	87.2	49.6	88.1	47.0
New Jersey	48.2	48.3	47.0	42.8	47.2	43.6	47.8	57.0
New Mexico	78.0	6.8	67.0	4.6	63.3	7.0	63.7	8.8
New York	65.7	10.0	59.3	7.6	56.2	7.4	54.7	7.7
North Carolina	99.4	81.7	98.2	73.8	86.9	25.2	85.0	21.1
North Dakota	90.5	17.7	83.2	11.9	72.5	8.4	65.5	12.6
Ohio	67.3	6.1	55.1	2.7	50.5	2.2	49.3	2.9
Oklahoma	71.4	4.3	76.9	3.1	69.9	3.2	68.1	3.0
Oregon	98.4	14.5	97.5	14.1	98.0	12.1	98.3	11.4
Pennsylvania	63.8	14.8	50.1	12.6	57.8	12.1	58.4	12.4
Rhode Island	80.7	13.5	71.1	21.1	68.7	17.1	67.9	20.7
South Carolina	100.0	89.1	99.9	89.8	98.8	87.5	97.0	85.3
South Dakota	84.0	37.4	68.3	17.8	59.9	14.0	72.1	12.6
Tennessee	95.0	39.8	89.9	37.3	85.3	33.1	84.9	29.4
Texas	63.7	14.1	55.0	14.7	52.9	15.2	51.7	15.4
Utah	83.1	9.5	80.2	8.9	74.8	11.7	71.7	7.7
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	90.2	28.8	71.2	18.6	70.8	10.0	65.3	6.4
Washington	54.5	24.0	90.6	25.0	78.9	19.2	87.7	17.8
West Virginia	53.4	12.7	38.7	12.8	32.7	12.0	25.2	11.6
Wisconsin	85.9	27.6	69.3	24.3	62.9	21.3	55.4	19.6
Wyoming	88.2	1.8	87.9	2.7	87.2	3.1	84.9	2.7
Total	70.4	18.0	62.9	16.8	59.5	15.1	57.9	15.6

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1998 — Continued

State	1997							
	July		June		May		April	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	29.1	25.5	57.7	23.1	63.4	23.9	66.9	22.8
Alaska	49.9	91.4	50.4	99.0	54.8	99.0	57.1	98.7
Arizona	79.8	30.5	82.7	18.2	86.1	17.5	83.9	19.6
Arkansas	90.3	8.5	91.1	9.8	91.8	11.2	93.8	10.8
California	45.8	7.3	48.7	8.4	50.3	12.4	52.8	10.0
Colorado	86.2	33.3	92.9	25.7	93.7	24.1	93.9	28.5
Connecticut	76.0	62.2	79.7	62.5	80.3	64.4	87.2	67.1
Delaware	100.0	28.4	100.0	29.1	100.0	35.4	100.0	36.8
District of Columbia	43.9	100.0	46.7	100.0	53.7	100.0	48.4	100.0
Florida	97.7	9.5	98.2	10.6	98.3	9.8	98.3	10.7
Georgia	81.0	27.6	84.3	22.5	85.4	21.5	88.5	25.5
Hawaii	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Idaho	83.2	2.0	83.3	2.3	86.5	2.5	86.1	2.1
Illinois	46.7	4.0	55.8	17.0	48.4	15.9	54.1	9.8
Indiana	85.4	11.0	59.4	11.3	58.0	11.7	91.1	12.9
Iowa	75.8	6.1	92.7	5.8	83.8	6.1	93.5	8.1
Kansas	54.0	9.2	65.4	8.2	67.1	9.4	72.6	9.4
Kentucky	84.0	15.4	88.6	16.8	86.3	19.4	89.0	18.5
Louisiana	95.2	9.9	95.2	10.4	95.3	11.2	95.5	9.5
Maine	100.0	100.0	100.0	87.4	100.0	90.3	100.0	90.5
Maryland	51.6	4.4	56.1	8.6	62.0	15.9	71.5	2.2
Massachusetts	46.0	14.4	48.5	21.6	69.9	19.3	74.1	25.0
Michigan	55.7	3.7	45.7	5.1	58.6	7.7	66.2	10.3
Minnesota	98.4	36.2	98.7	37.9	98.9	39.5	98.9	42.2
Mississippi	96.1	35.0	92.5	38.2	92.5	43.3	93.2	38.1
Missouri	68.3	18.4	71.3	19.0	76.9	24.2	80.7	17.0
Montana	90.5	1.7	88.8	2.2	90.3	2.1	91.2	4.5
Nebraska	67.6	41.2	68.6	20.6	67.0	25.8	77.5	21.8
Nevada	73.3	1.8	61.0	1.8	64.8	1.8	69.3	2.1
New Hampshire	87.0	50.6	90.7	53.3	91.6	58.5	92.0	61.7
New Jersey	44.8	42.1	50.1	41.4	45.7	43.3	55.9	49.6
New Mexico	63.9	8.9	54.0	3.9	68.1	5.3	66.9	1.4
New York	53.3	6.0	53.6	5.8	59.1	7.0	67.8	8.5
North Carolina	85.2	24.3	97.6	46.3	89.4	26.5	88.0	26.5
North Dakota	81.5	13.9	79.1	11.0	88.1	18.2	91.7	16.5
Ohio	47.5	2.9	50.2	2.8	58.9	4.6	65.7	4.7
Oklahoma	74.1	3.9	75.5	2.1	80.6	4.2	82.8	3.8
Oregon	98.3	13.3	98.1	16.7	98.5	17.3	98.5	20.4
Pennsylvania	55.8	10.9	56.4	13.1	50.1	13.2	66.2	14.1
Rhode Island	71.1	15.2	72.4	18.6	80.8	18.8	88.5	23.9
South Carolina	99.9	91.1	100.0	90.0	100.0	89.3	96.0	81.4
South Dakota	78.3	12.0	83.7	11.4	80.7	17.3	85.7	22.6
Tennessee	85.2	35.1	81.6	38.7	90.5	50.5	92.6	39.4
Texas	51.2	15.0	55.0	20.4	55.8	19.2	58.2	21.3
Utah	72.8	8.0	77.0	9.1	78.8	8.7	83.7	9.0
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	63.6	7.0	66.2	10.3	75.1	8.8	75.3	16.2
Washington	86.2	21.7	87.0	26.2	87.7	21.6	89.3	27.6
West Virginia	26.8	12.1	31.9	11.5	47.2	11.6	52.9	7.3
Wisconsin	67.9	18.8	60.6	18.4	77.4	26.1	83.3	24.4
Wyoming	43.9	2.8	67.8	2.5	87.1	2.4	76.0	2.6
Total	59.5	15.3	61.7	17.4	65.5	18.1	71.8	18.4

^R Revised Data.

NA Not Available.

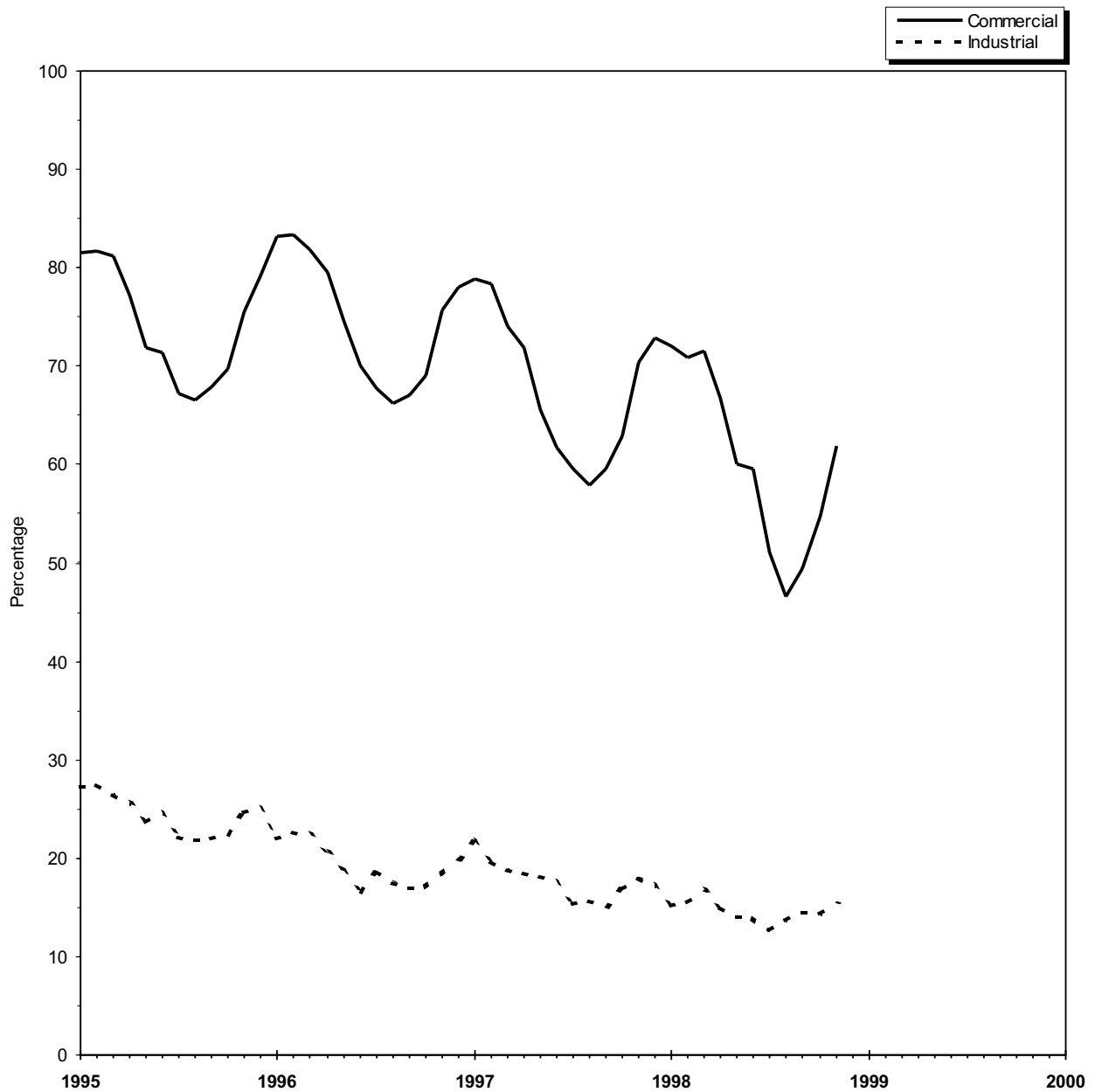
— Not Applicable.

Notes: Volumes of natural gas reported for the commercial and industrial sectors in this publication include data for both sales and deliveries for the account of others. This table shows the percent of the total State volume that represents natural gas sales to the commercial and

industrial sectors. This information may be helpful in evaluating commercial and industrial price data which are based on sales data only. See Appendix C, Statistical Considerations, for a discussion of the computation of natural gas prices.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Figure 6. Percentage of Total Deliveries Represented by Onsystem Sales, 1995-1999



Sources: Energy Information Administration, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 26. Gas Home Customer-Weighted Heating Degree Days

Census Divisions	November 1 through November 30					December 1 through December 31				
	Normal ^a	1997	1998	Percent Change		Normal ^a	1997	1998	Percent Change	
				Normal to 1998	1997 to 1998				Normal to 1998	1997 to 1998
New England										
CT, ME, MA, NH, RI, VT	693	784	711	2.6	-9.3	1,073	1,028	907	-15.5	-11.8
Middle Atlantic										
NJ, NY, PA	646	729	618	-4.3	-15.2	1,010	948	818	-19.0	-13.7
East North Central										
IL, IN, MI, OH, WI	730	829	642	-12.1	-22.6	1,142	1,052	957	-16.2	-9.0
West North Central										
IA, KS, MN, MO, ND, NE, SD	788	892	673	-14.6	-24.6	1,235	1,090	1,084	-12.2	-0.6
South Atlantic										
DE, FL, GA, MD and DC, NC, SC, VA, WV	421	519	391	-7.1	-24.7	696	708	576	-17.2	-18.6
East South Central										
AL, KY, MS, TN	431	546	362	-16.0	-33.7	717	778	617	-13.9	-20.7
West South Central										
AR, LA, OK, TX	280	359	190	-32.1	-47.1	534	590	502	-6.0	-14.9
Mountain										
AZ, CO, ID, MT, NV, NM, UT, WY	715	737	651	-9.0	-11.7	1,006	1,039	1,008	0.2	-3.0
Pacific ^b										
CA, OR, WA	341	276	382	12.0	38.4	519	504	577	11.2	14.5
U.S. Average ^b	559	621	511	-8.6	-17.7	881	845	781	-11.4	-7.6

Census Divisions	January 1 through January 31					Cumulative November 1 through January 31				
	Normal ^a	1998	1999	Percent Change		Normal ^a	1998	1999	Percent Change	
				Normal to 1999	1998 to 1999				Normal to 1999	1998 to 1999
New England										
CT, ME, MA, NH, RI, VT	1,222	1,014	1,179	-3.5	16.3	2,988	2,826	2,797	-6.4	-1.0
Middle Atlantic										
NJ, NY, PA	1,168	894	1,095	-6.3	22.5	2,824	2,571	2,531	-10.4	-1.6
East North Central										
IL, IN, MI, OH, WI	1,314	1,037	1,273	-3.1	22.8	3,186	2,918	2,872	-9.9	-1.6
West North Central										
IA, KS, MN, MO, ND, NE, SD	1,384	1,175	1,332	-3.8	13.4	3,407	3,157	3,089	-9.3	-2.2
South Atlantic										
DE, FL, GA, MD and DC, NC, SC, VA, WV	809	619	670	-17.2	8.2	1,926	1,846	1,637	-15.0	-11.3
East South Central										
AL, KY, MS, TN	843	634	652	-22.7	2.8	1,991	1,958	1,631	-18.1	-16.7
West South Central										
AR, LA, OK, TX	631	440	459	-27.3	4.3	1,445	1,389	1,151	-20.3	-17.1
Mountain										
AZ, CO, ID, MT, NV, NM, UT, WY	1,052	926	913	-13.2	-1.4	2,773	2,702	2,572	-7.2	-4.8
Pacific ^b										
CA, OR, WA	526	472	516	-1.9	9.3	1,386	1,252	1,475	6.4	17.8
U.S. Average ^b	995	797	917	-7.8	15.1	2,435	2,263	2,209	-9.3	-2.4

See footnotes at end of table.

Appendix A

Explanatory Notes

The Energy Information Administration (EIA) publishes monthly data for the supply and disposition of natural gas in the United States in the *Natural Gas Monthly* (NGM). The information in this Appendix is provided to assist users in evaluating the monthly data. There is a brief description of what data are estimated and what data are taken from submitted reports, followed by ten technical notes that provide important information for individual data series.

The monthly data are preliminary when initially published. Data shown in this report for the most current months are taken from the EIA Short-Term Integrated Forecasting System (STIFS) model computations. Each month, EIA staff review the STIFS model estimates and adjust them, if necessary, based on their knowledge of new developments in the natural gas industry. Data for prior months are estimated or taken from submitted reports.

Table A1. Methodology for Reporting Initial Monthly Natural Gas Supply and Disposition Data

Components	Reporting Methodology
Supply and Disposition	
Marketed Production	Reported on Form EIA-895 and Estimated from Historical Data
Extraction Loss	Derived from Marketed Production
Dry Production	Marketed Production minus Extraction Loss
Withdrawals from Storage	Reported on Form EIA-191
Supplemental Gaseous Fuels	Derived from Supply Estimates and Coal Gasification Information
Imports	Estimated from National Energy Board of Canada Information and Liquefied Natural Gas Information
Additions to Storage	Reported on Form EIA-191
Exports	Estimated from Industry Trends and Liquefied Natural Gas Information
Current-Month Consumption	Estimated from Historical Month-to-Month Percent Changes
Consumption by Sector	
Lease and Plant Fuel	Derived from Marketed Production
Pipeline Fuel	Derived from Estimates for Lease and Plant Fuel and Deliveries to Consumers
Residential	Estimated from Reports to the Sample Survey Form EIA-857
Commercial	Estimated from Reports to the Sample Survey Form EIA-857
Industrial	Estimated from Reports to the Sample Survey Form EIA-857
Electric Utilities	Reported on Form EIA-759

Final Monthly Data

Monthly data are revised after publication of the *Natural Gas Annual*. Final monthly data are estimated based on the revised annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. This ratio is applied to the revised monthly sum of these three elements to compute final monthly data.

Note 3. Production

Annual Data

Natural gas production data are collected from 33 gas-producing States on Form EIA-895 which includes gross withdrawals, vented and flared, repressuring, nonhydrocarbon gases removed, fuel used on leases, marketed production (wet), and extraction loss. The U.S. Minerals Management Service (MMS) also supplies data on the quantity and value of natural gas production on the Gulf of Mexico and Outer Continental Shelf. No adjustments are made to the data.

Estimated Monthly Data

State marketed production data for a particular month are estimated if data are unavailable at the time of publication. The data are estimated based on final monthly data reported on the Form EIA-895 for the previous year.

Estimates for total U.S. marketed production are based on final monthly data reported on the Form EIA-895 for the previous year. State estimates for nonhydrocarbon gas removed, gas used for repressuring, and gas vented and flared are based on the ratio of the item to gross withdrawals as reported on the EIA-895. These ratios are applied to the month's estimates for gross withdrawals to calculate figures for nonhydrocarbon gases removed, gas used for repressuring, and gas vented and flared. Estimates for gross withdrawal data are calculated from final monthly data filed on Form EIA-895 for the previous year.

Preliminary Monthly Data

All monthly data are considered preliminary until after publication of the *Natural Gas Annual* for the year in which the report month falls. Preliminary monthly data are published from reports from the Form EIA-895 and the MMS. Volumetric data are converted, as necessary, to a standard 14.73 psia pressure base. Data are revised as Table 7 monthly data are updated.

Final Monthly Data

Final monthly data for 1993, 1994, and 1995 are the sums of monthly data reported on the annual Form EIA-627, "Annual Quantity and Value of Natural Gas Report." For prior years, the differences between each State's annual production data reported on the EIA-627 and the sum of its monthly IOGCC reports for the year were allocated proportionally to the monthly IOGCC data.

Note 4. Imports and Exports

Annual Data and Final Monthly Data

Annual and final monthly data are published from the Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports*, which requires data to be reported each quarter by month for the calendar year.

Preliminary Monthly Data - Imports

Preliminary monthly import data are based on data from the National Energy Board of Canada and responses to informal industry contacts and EIA estimates. Preliminary data are revised after the publication of the article "U.S. Imports and Exports of Natural Gas" for the calendar year.

Preliminary Monthly Data - Exports

Preliminary monthly export data are based on historical data from the Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports*, informal industry contacts, and information gathered from natural gas industry trade publications. Preliminary monthly data are revised after publication of "U.S. Imports and Exports of Natural Gas" for the calendar year in which the report month falls.

Note 5. Consumption

All Annual Data

All consumption data except electric utility data are from the Form EIA-857 and Form EIA-176. No adjustments are made to the data. Electric utility data are reported on Form EIA-759.

Monthly Data

All monthly data are considered preliminary until after publication of the *Natural Gas Annual*.

Total Consumption

Preliminary Monthly Data

The most current month estimate is calculated based on the arithmetic average change from the previous month for the previous 3 years. The following month this estimate is revised by summing the components (pipeline fuel, lease and plant fuel, and deliveries to consumers).

Final Monthly Data

Monthly data are revised after publication of the *Natural Gas Annual*. Final monthly total consumption is obtained by summing its components.

Residential, Commercial, and Industrial Sector Consumption

Preliminary Monthly Data

Preliminary monthly residential, commercial, and industrial data are from Form EIA-857. See Appendix C, “Statistical Considerations,” for a detailed explanation of sample selection and estimation procedures.

Average Price of Deliveries to Consumers

Price data are representative of prices for gas sold and delivered to residential, commercial, and industrial consumers. These prices do not reflect average prices of natural gas transported to consumers for the account of third parties or “spot-market” prices.

Final Monthly Data

Monthly data are revised after the publication of the *Natural Gas Annual*. Final monthly data are estimated by allocating annual consumption data from the Form EIA-176 to each month in proportion to monthly volumes reported in Form EIA-857.

Agricultural Use

Beginning with the reporting of 1996 annual data, the EIA changed the customer category used for reporting deliveries to consumers in the agricultural industry from commercial to industrial. In 1995 and earlier years, consumption of natural gas for agricultural use was classified as commercial use. Separate reports of the volumes affected are not available so the direct impact of this change is not known. Most natural gas consumed in agriculture is used to drive irrigation systems and to drive crops.

For the reporting of monthly data, the customer category will not be changed until 1998. In 1996, the monthly data reported under the old classification were adjusted to the

annual data reported under the new classification. Monthly 1997 data will be adjusted in the same way as the 1996 data.

In comparing sectoral use over time, note that:

- There is an inherent shift in natural gas volumes from the commercial to industrial sectors due simply to changes in the reporting requirements. This break in series may indicate a spurious increase in industrial consumption with a corresponding decrease in the commercial sector.
- The sum of natural gas volumes consumed by the commercial and industrial sectors will not be changed by this modification of the instructions.

Electric Utility Sector Consumption

All Monthly Data

Monthly data published are from Form EIA-759.

Pipeline Fuel Consumption

Preliminary Monthly Data

Preliminary data are estimated based on the pipeline fuel consumption as an annual percentage of total consumption from the previous year’s Form EIA-176. This percentage is applied to each month’s total consumption figure to compute the monthly estimate.

Final Monthly Data

Monthly data are revised after the publication of the *Natural Gas Annual*. Final monthly data are based on the revised annual ratio of pipeline fuel consumption to total consumption from the Form EIA-176. This ratio is applied to each month’s revised total consumption figure to compute final monthly pipeline fuel consumption estimates.

Lease and Plant Fuel Consumption

Preliminary Monthly Data

Preliminary monthly data are estimated based on lease and plant fuel consumption as an annual percentage of marketed production. This percentage is applied to each month’s marketed production figure to compute estimated lease and plant fuel consumption.

Final Monthly Data

Monthly data are revised after publication of the *Natural Gas Annual*. Final monthly plant fuel data are based on a revised annual ratio of lease and plant fuel consumption to marketed production from Form EIA-176. This ratio is applied to each month’s revised marketed production figure to compute final monthly plant fuel consumption estimates.

Final monthly lease data are collected on the Form EIA-627 and estimates from the Form EIA-176. See the *Natural Gas Annual* for a complete discussion of this process.

Note 6. Extraction Loss

Annual Data

Extraction loss data are calculated from filings of Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." For a fuller discussion, see the *Natural Gas Annual*.

Preliminary Monthly Data

Preliminary data are estimated based on extraction loss as an annual percentage of marketed production. This percentage is applied to each month's marketed production to estimate monthly extraction loss.

Final Monthly Data

Monthly data are revised after the publication of the *Natural Gas Annual*. Final monthly data are estimated by allocating annual extraction loss data to each month based on its total natural gas marketed production.

Note 7. Natural Gas Storage

Underground Natural Gas Storage

All monthly data concerning underground storage are published from the EIA-191. A new EIA-191 became effective in January 1994. Injection and withdrawal data from the EIA-191 survey are adjusted to correspond to data from Form EIA-176 following publication of the *Natural Gas Annual*.

Underground and Liquefied Natural Gas Storage

The final monthly and annual storage and withdrawal data for 1991 through 1995 shown in Table 2 include both underground and liquefied natural gas (LNG) storage. Underground storage data are obtained from the EIA-191 and EIA-176 surveys in the manner described earlier. Annual data on LNG additions and withdrawals are taken from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage

additions and withdrawals and applying it to annual LNG data.

Types of Underground Storage Facilities

There are three principal types of underground storage facilities in operation in the United States today: salt caverns (caverns hollowed out in salt "bed" or "dome" formations), depleted fields (depleted reservoirs in oil and/or gas fields), and aquifer reservoirs (water-only reservoirs conditioned to hold natural gas). A storage facility's daily deliverability or withdrawal capability is the amount of gas that can be withdrawn from it in a 24-hour period. Salt cavern storage facilities generally have high deliverability because all of the working gas in a given facility can be withdrawn in a relatively short period of time. (A typical salt cavern cycle is 10 days to deplete working gas, and 20 days to refill working gas.) By contrast, depleted field and aquifer reservoirs are designed and operated to withdraw all working gas over the course of an entire heating season (about 150 days). Further, while both traditional and salt cavern facilities can be switched from withdrawal to injection operations during the heating season, this is usually more quickly and easily done in salt cavern facilities, reflecting their greater operational flexibility.

Note 8. Average Wellhead Value

Annual Data

Form EIA-895 requests State agencies to report the quantity and value of marketed production. When complete data are unavailable, the form instructs the State agency to report the available value and the quantity of marketed production associated with this value. A number of States reported volumes of production and associated values for other than marketed production. In addition, information for several States which were unable to provide data was obtained from Form EIA-176. It should be noted that Form EIA-176 reports a fraction of State production. The imputed value of marketed production in each State is calculated by dividing the State's reported value by its associated production. This unit price is then applied to the quantity of the State's marketed production to derive the imputed value of marketed production.

Preliminary Monthly Data

Preliminary values for the monthly U.S. Natural gas wellhead price are estimated from the prevailing cash market prices at 5 major trading hubs: Henry Hub, LA; Carthage, TX; Katy, TX; Waha, TX; and Blanco, NM. These prices appear initially in the trade publication, *Natural Gas Week*, and they reflect the spot

delivered-to-pipeline, volume-weighted average prices for natural gas bought and sold at the specified trading hubs. Prices include processing, gathering, and transportation fees to the hubs. The estimated wellhead prices are derived with a statistical procedure based on analysis of monthly time series data for the period 1995 through 1997. The preliminary estimates are replaced when annual survey data become available. This procedure was adopted beginning with publication of the February 1999 issue of the *Natural Gas Monthly* and it affects price estimates from January 1998 to the present.

Final Monthly Data

The Form EIA-895 requests State agencies to report monthly values of marketed production. Preliminary monthly gas price data are replaced by these final monthly data.

Note 9. Balancing Item

The “balancing item” category represents the difference between the sum of the components of natural gas supply and the sum of the components of natural gas disposition. These differences may be due to quantities lost or to the effects of data reporting problems.

Reporting problems include differences due to the net result of conversions of flow data metered at varying temperatures and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycles and calendar periods; and imbalances resulting from the merger of data reporting systems, which vary in scope, format, definitions, and type of respondents.

Annual Data

Annual data are from the *Natural Gas Annual*. For an explanation of the methodology involved in calculating annual “balancing item” data, see the *Natural Gas Annual*.

Preliminary Monthly Data

Preliminary monthly data in the “balancing item” category are calculated by subtracting dry gas production, withdrawals from storage, supplemental gaseous fuels, and imports from total supply/disposition.

Note 10. Heating Degree-Days

Degree-days are relative measurements of outdoor air temperature. Heating degree-days are deviations of the mean daily temperature below 65 degrees Fahrenheit. A weather station recording a mean daily temperature of 40 degrees Fahrenheit would report 25 heating degree-days. There are several degree-day data bases maintained by the National Oceanic and Atmospheric Administration. The information published in the *Natural Gas Monthly* is developed by the National Weather Service Climate Analysis Center, Camp Springs, Maryland.

The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at these weather stations is used to calculate Statewide degree-day averages weighted by gas home customers. The State figures are then aggregated into Census Divisions and into the national average.

Appendix B

Data Sources

The data in this publication are taken from survey reports authorized by the U.S. Department of Energy (DOE), Energy Information Administration (EIA) and by the Federal Energy Regulatory Commission (FERC). The EIA is the independent statistical and analytical agency within the DOE. The FERC is an independent regulatory commission within the DOE which has jurisdiction primarily in the regulation of electric utilities and the interstate natural gas industry. The EIA conducts and processes some of the surveys authorized by the FERC. Data are collected from two annual surveys and four monthly surveys.

The annual reports are the Form EIA-176, a mandatory survey of all companies that deliver natural gas to consumers or that transport gas across State lines, and the Form EIA-627, a voluntary survey completed by energy or conservation agencies in the gas-producing States.

The monthly reports include two surveys of the natural gas industry and two surveys of the electric utility industry. The natural gas industry survey is the Form EIA-191 filed by companies that operate underground storage facilities, and the Form EIA-857 filed by a sample of companies that deliver natural gas to consumers. The electric utility industry surveys are the Form EIA-759 filed by all generating electric utilities and the Form FERC-423 filed by fossil fueled plants. Responses to these four monthly surveys are mandatory.

A description of the survey respondents, reporting requirements, and processing and editing of the data is given on the following pages for each of the surveys.

Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"

Survey Design

The original version of Form EIA-176 was approved in 1980 with a mandatory response requirement. Prior to 1980, published data were based on voluntary responses to Bureau of Mines, U.S. Department of the Interior predecessor Forms BOM-6-1340-A and BOM-6-1341-A of the same title.

In 1982, the scope of the revised EIA-176 survey was expanded to collect the number of electric utility consumers in each State, volumes of gas transported to industrial and electric utility consumers, detailed information on volumes transported across State borders by the respondent for others and for the responding company, and detailed information on other disposition. These changes were incorporated to provide more complete survey information with a minimal change in respondent burden. The 1982 version of the Form EIA-176 continues to be the basis for the current version of this form.

In 1988, the Form EIA-176 was revised to include data collection for deliveries of natural gas to commercial and industrial consumers for the account of others. A short version of Form EIA-176 was also approved in 1988. Companies engaged in purchase and delivery activities but not in transportation and storage activities may file the short form. Usually, these companies are municipals handling small volumes of gas.

In 1990, the Form EIA-176 was revised to include more detailed information for gas withdrawn from storage facilities, gas added to storage facilities, deliveries of company-owned natural gas and natural gas transported for the account of others. The revised form was approved for use beginning with report year 1990.

Upon the Office of Management and Budget's approval in 1993, the Form EIA-176 was again revised. All deliveries to consumers are now categorized as firm or interruptible. Commercial and industrial consumers are further categorized as nonutility power producers or as those excluding nonutility power producers.

Data reported on this form are no longer considered proprietary. Response to the form continues to be mandatory.

Survey Universe and Response Statistics

The Form EIA-176 is mailed to all identified interstate and intrastate natural gas pipeline companies, investor and municipally owned natural gas distributors, underground natural gas storage operators, synthetic natural gas plant operators, and field, well, or processing plant operators that deliver natural gas directly to consumers (including their own industrial facilities) and/or that transport gas to, across, or from a State border through field or gathering facilities.

Each company and its parent company or subsidiaries were required to file if they met the survey specifications. The original mailing in 1996 for report year 1995 totaled 1,991 questionnaire packages. To this original mailing, 11 names were added and 61 were deleted as a result of the survey processing. Additions were the result of comparisons of the mailing list to other survey mailing lists. Deletions resulted from post office returns and determinations that companies were out of business, sold, or not within the scope of the survey. After all updates, the survey universe was 1,941 responses from approximately 1,800 companies.

Following the original mailing, second request mailing, and nonrespondents follow-up, 1,911 responses were entered into the data base, and there were 30 nonrespondents.

Summary of Form EIA-176 Data Reporting Requirements

The EIA-176 is a multiline schedule for reporting all supplies of natural gas and supplemental gaseous fuels and their disposition within the State indicated. Respondents file completed forms with EIA in Washington, DC. Data for the report year are due by April 1 of the following year. Extensions of the filing deadline for up to 45 days are granted to any respondent on request.

All natural gas and supplemental gaseous fuels volumes are reported on a physical custody basis in thousand cubic feet (Mcf), and dollar values are reported to the nearest whole dollar. All volumes are reported at 14.73 pounds per square inch absolute pressure (psia) and 60 degrees Fahrenheit.

Routine Form EIA-176 Edit Checks

A series of manual and computerized edit checks are used to screen the Form EIA-176. The edits performed include validity, arithmetic, and analytical checks.

The incoming forms are reviewed prior to keying. This prescan determines if the respondent identification (ID) number and the company name and address are correct, if the data on the form appear complete and reasonable, and if the certifying information is complete.

Manual checks on the data are also made. Each form is prescanned to determine that data were reported on the correct lines. The flow of gas through interstate pipelines is checked at the company level to ensure that each delivery from a State is matched with a corresponding receipt in an adjoining State.

After the data are keyed, computer edit procedures are performed. Edit programs verify the report year, State code, and arithmetic totals. Further tests are made to ensure that all necessary data elements are present and that the data are reasonable and internally consistent. The computerized edit system produces error listings with messages for each failed

edit test. When problems occur, respondents are contacted by telephone and required to file amended forms with corrected data.

Other EIA Publications Referencing Form EIA-176

Data from Form EIA-176 are also published in the *Natural Gas Annual*.

Form EIA-895, "Monthly Quantity of Natural Gas Report"

Survey Design

In 1996, an annual schedule was added to the Form EIA-895 to replace the Form EIA-627. Data collection on the Form EIA-895 began in January 1995. This form was designed to replace the Interstate Oil and Gas Compact Commission (IOGCC) form, "Monthly Report of Natural Gas Production." In 1994, the IOGCC decided to discontinue collection of their form. All gas producing States are requested to report on the Form EIA-895; a voluntary report. Data are reported by State agencies. The form was designed to provide a standard reporting system, to the extent possible, for the natural gas data reported by the States. Data are not considered proprietary.

Beginning with 1980, natural gas production data previously obtained on an informal basis from State conservation agencies were collected on Form EIA-627. This form was designed by EIA to collect annual natural gas production data from the appropriate State agencies under a standard data reporting system within the limits imposed by the diversity of data collection systems of the various producing States. The form was redesigned in 1990 to collect monthly breakdowns of all annual data elements. Data are not considered proprietary. It was also designed to avoid duplication of effort in collecting production and value data by producing States and to avoid an unnecessary respondent burden on gas and oil well operators. In 1993, value and associated volume of marketed production by month was added to the EIA-627. In 1996, the Form EIA-627 was discontinued. The information is collected on an annual schedule on the Form EIA-895.

Survey Universe and Response Statistics

Form EIA-895 is mailed to energy or conservation agencies in all 33 natural gas producing States. All producing States participate voluntarily in the EIA-895 survey by filing the completed form or by responding to telephone contacts.

Reports on State production are due 20 days after the end of the report month. (In most cases, the data are not available to the States until after this time period.)

Therefore, States are requested to send the report within 80 days after the end of the report month.) The annual schedule of the Form EIA-895 is due with the December data report.

Summary of Data Requirements

The Form EIA-895 monthly schedule consists of nine questions on one page, and requires volumetric information on gross production (gas and oil wells individually), gas used for repressuring, gas vented and flared, nonhydrocarbon gases removed, natural gas used as fuel on leases, marketed production, value based marketed production and the value in dollar amount of the marketed production.

Form EIA-895 annual schedule collects data on the monthly and annual production volume of natural gas (including gross withdrawals from both gas and oil wells); volumes returned to formation for repressuring, pressure maintenance, and cycling; quantities vented and flared; quantities of nonhydrocarbon gases removed; quantities of fuel used on leases; marketed production; the value of marketed production; and the number of producing gas wells.

Respondents are asked to report all volumes in thousand cubic feet at the State's standard pressure base and at 60 degrees Fahrenheit. All dollar values are reported in thousands.

Routine Form EIA-895 Edit Checks

Each filing of Form EIA-895 is manually checked for reasonableness and mathematical accuracy. Information on the forms is compared to totals of monthly data reported. Volumes are converted, as necessary, to a standard 14.73 psia pressure base. Reasonableness of data is assessed by comparing reported data to the previous year's data. State agencies are contacted by telephone to correct errors. Amended filings or resubmissions are not a requirement, since participation in the survey is voluntary.

Other EIA Publications Referencing Form EIA-895

Data from Form EIA-895 are also published in the EIA publication, *Natural Gas Annual*.

EIA-191 Survey, "Underground Natural Gas Storage Report"

Survey Design

The Form EIA-191, "Underground Natural Gas Storage Report," was revised effective January 1994. Among the changes from the form used from 1991 through 1993 are a distinction between a monthly and annual survey. Prior to 1991, data on the storage of natural gas were collected on a survey jointly implemented in 1975 by the Federal Power Commission (FPC), the Federal Energy Administration (FEA), and the Bureau of Mines (BOM) as the FPC-8/FEA-G-318 system. The data received on both the FPC-8 and FEA-G-318 were computerized and aggregated by FPC. The form was previously revised in 1991 to include storage data by State, field, and reservoir.

At the beginning of 1979, the EIA assumed responsibility for the collection, processing, and publication of the data gathered in the survey. Form FEA-G-318 was renewed on July 1, 1979, as Form EIA-191 and the survey was retitled the FPC-8/EIA-191 Survey (Figure D4 shows the EIA-191). Form FPC-8 was renewed in December 1985 and the survey retitled FERC-8/EIA-191 Survey. The forms were not merged because of FERC's stated desire to maintain the separate identity of the FERC-8 for administrative reasons. In September 1995, the FERC discontinued the reporting requirements of Form FERC-8. FERC jurisdictional firms will continue to file Form EIA-191.

Survey Universe and Response Statistics

The 103 companies that operate underground facilities will file the Form EIA-191. Of these companies, 42 are subject to the jurisdiction of FERC and are required to report data on Form EIA-191.

The response rate as of the filing deadline is approximately 20 percent. Data from the remaining 80 percent of respondents are received in writing and/or by telephone within 3 to 4 days after the filing deadline. All data supplied by telephone are subsequently filed in writing, generally within 15 days of the filing deadline. The final response rate is 100 percent.

Summary of EIA-191 Data Reporting Requirements

The EIA-191 monthly schedule contains current month and prior month's data on the total quantities of gas in storage, injections and withdrawals, the location (including State and county, field, reservoir) and peak day withdrawals during the reporting period. Prior month's data are required only when data are revised. Information on co-owners of storage fields has been eliminated. The annual schedule contains type of facility, storage field capacity,

maximum deliverability and pipelines to which each field is connected. The annual schedule is filed with the January submission.

Collection of the survey is on a custody basis. Information requested must be provided within 20 days after the first day of each month. Twelve reports are required per calendar year. Respondents are required to indicate whether the data reported are actual or estimated. For most of the estimated filings, the actual data or necessary revisions are reflected in the prior month section of the monthly form. Actual data on natural gas injections and withdrawals from underground storage are based on metered quantities. Data on quantities of gas in storage and on storage capacity represent, in part, reservoir engineering evaluations. All volumes are reported at 14.73 psia and 60 degrees Fahrenheit.

Routine Form EIA-191 Edit Checks

Data received on Form EIA-191 are entered into the survey processing system. The survey's five principal data elements (total, base, working gas in storage, injections, and withdrawals) receive a preliminary visual edit to eliminate and correct obvious errors or omissions. Respondents are required to refile reports containing any inconsistencies or errors.

Other EIA Publications Referencing Form EIA-191

The EIA publication *Monthly Energy Review* and *Winter Fuels Report* contain data from the EIA-191 survey.

"Quarterly Natural Gas Import and Export Sales and Price Report"

Survey Design

The collection of data covering natural gas imports and exports was begun in 1973 by the Federal Power Commission (FPC). On October 1977, FPC ceased to exist and its data collection functions were transferred to the Federal Energy Regulatory Commission (FERC) within the Department of Energy (DOE). From 1979 to 1994, the Energy Information Administration (EIA) has had the responsibility for collecting Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." Data are not considered proprietary. The Form FPC-14 was discontinued in 1995.

Beginning in 1995, import and export data are taken from the "Quarterly Natural Gas Import and Export Sales and Price Report." This report is prepared by the Office of Fossil Energy, U.S. Department of Energy, based on information submitted by all firms having authorization to import or export natural gas.

Survey Universe and Response Statistics

All companies are required, as a condition of their authorizations to import or export natural gas, to file quarterly reports with the Office of Fossil Energy. These data are collected as part of its regulatory responsibilities. The data are reported at a monthly level of detail. Data reported on the Form FPC-14 represented physical movements of natural gas. Data collected by the Office of Fossil Energy are reported on an equity (sales) basis. For 1994 and earlier years, comparisons of the data from the two sources may show differences because reporting requirements were different. Prior to 1995, the Form FPC-14 was filed annual-ly by each organization or individual having authority to import and export natural gas regardless of whether any activity took place during the reporting year. Authorizations to import and export was originally granted by the FPC. In 1977, the authority to grant authorizations transferred to the Economic Regulatory Administration (ERA). It now resides with the Office of Fossil Energy, U.S. Department of Energy.

Routine Edit Checks

Respondents are required to certify the accuracy of all data reported. The data are checked for reasonableness and accuracy. If errors are found, the companies are required to file corrected data. The data are compared with data reported by the National Energy Board of Canada and are published quarterly. All natural gas volumes in this report are expressed at a pressure base of 14.73 pounds per square inch absolute and temperature of 60 degrees Fahrenheit, except as noted. All import and export prices are in U.S. dollars and, except for LNG exports, are those paid at the U.S. border. LNG export prices are those paid at the point of sale and delivery in Yokohama, Japan.

Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"

Survey Design

The original Form EIA-857 was approved for use in December 1984. Response to the Form EIA-857 is mandatory on a monthly basis. Data collected on the Form EIA-857 cover the 50 States and the District of Columbia and include both price and volume data. Data are considered proprietary.

Survey Universe and Response Statistics

A sample of 382 natural gas companies, including interstate pipelines, intrastate pipelines, and local distribution companies, report to the survey. The sample was selected independently for each of the 50 States and the District of

Columbia from a frame consisting of all respondents to Form EIA-176 who reported deliveries of natural gas to consumers in the residential, commercial, or industrial sectors. Each selected company is required to complete and file the Form EIA-857 on a monthly basis. Initial response statistics on a monthly basis are as follows: responses received by due date, approximately 50 percent, and responses received after follow-up, 100 percent. Virtually all are received in time for incorporation in the current month's processing cycle. When a response is extremely late, and the company represents less than 25 percent of the natural gas volumes delivered by all sampled companies in the State, values are imputed as described in Appendix C. When the company's submission is eventually received, the submitted data are used for future processing and revisions.

The Form EIA-857 is a monthly sample survey of firms delivering natural gas to consumers. It provides data that are used to estimate monthly sales of natural gas (volume and price) by State and monthly deliveries of natural gas on behalf of others (volume) by State to three consumer sectors - residential, commercial, and industrial. (Monthly deliveries and prices of natural gas to electric utilities are reported on the Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and the Form EIA-759, "Monthly Power Plant Report.") See Appendix C for a discussion of the sample design and estimation procedures.

Summary of Form EIA-857 Data Reporting Requirements

Data collected monthly on the Form EIA-857 on a State level include the volume and cost of purchased gas, the volume and cost of natural gas consumed by sector (residential, commercial, and industrial), and the average heat content of all gas consumed. Respondents file completed forms with EIA in Washington, DC on or before the 30th day after the end of the report month.

All natural gas volumes are reported in thousand cubic feet at 14.73 psia at 60 degrees Fahrenheit and dollar values are reported to the nearest whole dollar.

Routine Form EIA-857 Edit Checks

A series of manual and computerized edit checks are used to screen the Form EIA-857. The edits performed include validity and analytical checks.

Appendix C

Statistical Considerations

The monthly sales (volume and price) and monthly deliveries (volume) of natural gas to residential, commercial and industrial consumers presented in this report by State are estimated from data reported on the Form EIA-857, A Monthly Report of Natural Gas Purchases and Deliveries to Consumers. (See Appendix B for a description of this Form.) These estimations must be made from the reported data since the Form EIA-857 is a sample survey. A description of the sample design and the estimation procedures is given below.

Sample Design

The Form EIA-857 is a monthly sample survey of companies delivering natural gas to consumers. It includes inter- and intrastate companies, and producers, as well as local distribution companies. The survey provides data that are used each month to estimate the volume of natural gas delivered and the price for onsystem sales of natural gas by State to three consumer sectors—residential, commercial, and industrial. Monthly deliveries and prices of natural gas to electric utilities are reported on the Form EIA-759, A Monthly Power Plant Report, and the Form FERC-423, A Monthly Report of Costs and Quality of Fuels for Electric Plants.

Sample Universe. The sample currently in use was selected from a universe of 1,538 companies. These companies were respondents to the Form EIA-176, A Annual Report of Natural and Supplemental Gas Supply and Disposition, for reporting year 1995 who reported sales or deliveries to consumers in the residential, commercial or industrial sectors. (See Appendix B for a description of the Form EIA-176.)

Sampling Plan. The goal was a sample that would provide estimates of monthly natural gas consumption by the three consuming sectors within each State and the District of Columbia. A stratified sample using a single stage and systematic selection with probability proportional to size was designed. The measure of size was the volume of natural gas physically delivered in the State to the three consuming sectors by the company in 1995. There were two strata—companies selected with certainty and companies selected under the systematic probability proportional to size design.

Initial calculations showed that a 25 percent sample of companies would yield reasonably accurate estimates. The sample was selected independently in each State, resulting in a national total of 387 respondent companies. Unlike previous years, no mergers or acquisitions were uncovered as a result of the initial mail-out. Therefore there was no need for either substitution of respondent companies or a reduction in the total number of respondents.

Certainty Stratum. Since estimates were needed for each of the 50 States and the District of Columbia, the strata were established independently within each State. In 16 States and the District of Columbia where sampling was not feasible due to small numbers of companies and/or small volumes of gas deliveries, all companies were selected. The 16 States were: Alaska, Connecticut, Delaware, Hawaii, Idaho, Maine, North Dakota, New Hampshire, New Jersey, Nevada, Oregon, Rhode Island, South Dakota, Utah, Vermont, and Washington.

For each of the remaining States, the total volumes of industrial sales and deliveries and of the combined residential/commercial sales and deliveries were determined. Companies with natural gas deliveries to the industrial sector or to the combined residential/commercial sector above a certain level were selected with certainty. Since a few large companies often account for most of the natural gas delivered within a State, this ensures those companies' inclusion in the sample. The formula for determining certainty was applied independently in the two consumer sectors—the industrial and the combined residential/commercial. These selected companies, together with the companies in the jurisdictions discussed where sampling was not feasible, formed the certainty stratum.

All companies with natural gas deliveries in sector j greater than the cut-off value (C_j) were included in the certainty stratum. The formula for C_j was:

$$C_j = \frac{X_j}{2n} \quad (1)$$

where:

C_j = cutoff value for consumer sector j ,

n = target sample size to be selected for the State, 25 percent of the companies in the State,

X_{ij} = the annual volume of natural gas deliveries by company i to customers in consumer sector j,

$X_{i.}$ = the sum within State of annual gas volumes for company i,

$X_{.j}$ = the sum within State of annual gas volumes in consumer sector j,

$X_{..}$ = the sum within State of annual gas volumes in all consumer sectors.

Noncertainty Stratum. All other companies formed the noncertainty stratum. They were systematically sampled with probability proportional to size. The measure of size for each company was the total volume of gas sales to all consumer sectors ($X_{i.}$). The number of companies to be selected from the noncertainty stratum was calculated for each State, with a minimum of 2.

The formula for selecting the number of noncertainty stratum companies was:

$$m = n \frac{X_2}{X_{..}} \quad (2)$$

where:

m = the sample size for the noncertainty stratum within a State,

X_2 = the sum within State of the $X_{i.}$ for all companies in the noncertainty stratum.

Companies were listed in ascending order according to their measure of size and then a cumulative measure of size in the stratum was calculated for each company. The cumulative measure of size was the sum of the measures of size for that company and all preceding companies on the list. An interval of width I for selecting the companies systematically was calculated using.

A uniform random number R was selected between zero and

I. The first sampled company was the first company on the list to have a cumulative measure of size greater than R. The second company selected was the first company on the list to have a cumulative measure of size greater than R + I. R + I was increased again by I to determine the third company to be selected. This procedure was repeated until the entire sample was drawn.

Subgroups. In eight States, the noncertainty stratum was divided into subgroups to ensure that gas in each consumer sector could be estimated. The systematic sample with probability proportional to size design described above was applied independently in each subgroup. The methods for determining the subgroup sample size and calculating the

subgroup interval for sample selection were the same as the methods described above for the noncertainty stratum, except that X_2 was the sum within State of the $X_{i.}$ for only those companies in the subgroup.

These subgroups were defined only for the purpose of sample selection. They are:

California: companies handling only industrial gas and all other companies.

Iowa: companies handling industrial gas and companies delivering only to residential or commercial customers.

Louisiana: companies handling only industrial gas and all other companies, with the latter being further subdivided according to size. The larger group is comprised of all companies with total deliveries of at least 200 million cubic feet while the smaller group consists of companies with less than that volume of delivered gas (three subgroups).

Oklahoma: Companies delivering less than 500 million cubic feet of gas and those delivering more than that volume.

Texas: companies handling only residential/commercial gas, companies handling only industrial gas, and all other companies (three subgroups).

Estimation Procedures

Estimates of Volumes. A ratio estimator is applied to the volumes reported in each State by the sampled companies to estimate the total gas sales and deliveries for the State. Ratio estimators are calculated for each consumer sector (residential, commercial, and industrial) in each State where companies are sampled. The following annual data are taken from the most recent 1995 submissions of Form EIA-176:

The formula for calculating the ratio estimator (E_{vj}) for the volume of gas in consumer sector j is:

$$E_{vj} = \frac{Y_{.j}}{Y'_{.j}} \quad (3)$$

where:

$Y_{.j}$ = the sum within State of annual gas volumes in consumer sector j for all companies,

$Y'_{.j}$ = the sum within State of annual gas volumes in consumer sector j for those companies in the sample.

The ratio estimator is applied as follows:

$$V_j = y_{.j} \times E_{vj} \quad (4)$$

where:

V_j = the State estimate of monthly gas volumes in consumer sector j ,

$y_{.j}$ = the sum within State of reported monthly gas volumes in consumer sector j .

Computation of Natural Gas Prices. The natural gas volumes that are included in the computation of prices represent only those volumes associated with natural gas sales.

The price of natural gas for a State within a sector is calculated as follows:

$$P_j = \frac{R_j}{V'_j}$$

where:

P_j = the average price for gas sales within the State in consumer sector j ,

R_j = the reported revenue from natural gas sales within the State in consumer sector j ,

V'_j = the reported volume of natural gas sales within the State in consumer sector j .

All average prices are weighted by their corresponding sales volume estimates when national average prices are computed.

The monthly average prices of natural gas are based on sales data only. Volumes of gas delivered for the account of others to these consumer sectors are not included in the State or national average prices.

Table 25 shows the percent of the total State volume that represents volumes from natural gas sales to the commercial and industrial sectors. This table may be helpful in evaluating commercial and industrial price data. Virtually all natural gas deliveries to the residential sector represent onsystem sales volumes only.

See the section on consumer price calculations in this Appendix for further price information.

Estimation for Nonrespondents. A volume for each consumer category is imputed for companies that fail to respond. The imputation is based on the previous month's value reported by the non-responding company and the change from the previous month to the current month in volumes reported by other companies in the State. The imputed volumes are included in the State totals. To estimate prices for non-respondents, the unit price (dollars per thousand cubic feet) reported by the company in the previous month is used.

The formula for imputing volumes of gas sales for nonrespondents was:

$$F_t = F_{t-1} \times \frac{y_{.jt}}{y_{.jt} - 1} \quad (5)$$

where:

F_t = imputed gas volume for current month t ,

F_{t-1} = gas volume for the company for the previous month,

$y_{.jt}$ = gas volume reported by companies in the State stratum for report month t ,

$y_{.jt-1}$ = gas volume in the previous month for companies in the State stratum that reported in month t .

Final Revisions

Adjusting Monthly Data to Annual Data. After the annual data reported on the Form EIA-176 have been submitted, edited, and prepared for publication in the *Natural Gas Annual*, revisions are made to monthly data. The revisions are made to the volumes and prices of natural gas delivered to consumers that have appeared in the *Natural Gas Monthly* to match them to the annual values appearing in the *Natural Gas Annual*. The revised monthly estimates allocate the difference between the sum of monthly estimates and the annual reports according to the distribution of the estimated values across the months.

Before the final revisions are made, changes or additions to submitted data received after publication of the monthly estimate and not sufficiently large to require a revision to be published in the *Natural Gas Monthly*, are used to derive an updated estimate of monthly consumption and revenues for each State's residential, commercial, or industrial natural gas consumption.

For each State, two numbers are revised, the estimated consumption and the estimated price per thousand cubic feet.

The formula for revising the estimated consumption is:

$$V_{jm}^* = V_{jm} + \left[(V_{ja} - V'_{jm}) \left(\frac{V_{jm}}{V'_{jm}} \right) \right] \quad (6)$$

where:

V_{jm}^* = the final volume estimate for month m in consumer sector j,

V_{jm} = the estimated volume for month m in consumer sector j,

V_{ja} = the volume for the year reported on Form EIA-176,

V'_{jm} = The annual sum of estimated monthly volumes.

The price is calculated as described above in the Estimation Procedures section, using the final revised consumption estimate and a revised revenue estimate.

The formula for revising the estimated revenue is:

$$R_{jm}^* = R_{jm} + \left[(R_{ja} - R'_{jm}) \left(\frac{R_{jm}}{R'_{jm}} \right) \right] \quad (7)$$

where:

R_{jm}^* = the final revenue estimate for month m in consumer sector j,

R_{jm} = the estimated revenue for month m in consumer sector j,

R_{ja} = the revenue for the year reported on Form EIA-176,

R'_{jm} = The annual sum of estimated monthly revenues. Revision of Volumes and Prices for Deliveries to Electric Utilities. Revisions to monthly electric utilities data are published throughout the year as they become available.

Reliability of Monthly Data

The monthly data published in this report are subject to two sources of error - nonsampling error and sampling error. Nonsampling errors occur in the collection and processing of the data. See the discussion of the Form EIA-857 in Appendix B for a description of nonsampling errors for monthly data.

Sampling error may be defined as the difference between the results obtained from a sample and the results that a complete enumeration would provide. The standard error statistic is a measurement of sampling error.

Standard Errors. A standard error of an estimate is a statistical measure that indicates how the estimate from the sample compares to the result from a complete enumeration. Standard errors are calculated based on statistical theory that refers to all possible samples of the same size and design.

The standard errors for monthly natural gas volume estimates by State are given in Table C1. Ninety-five percent of the time, the volume that would have been obtained from a complete enumeration will lie in the range between the estimated volume minus two standard errors and the estimated volume plus two standard errors.

The standard error of the natural gas volume estimate is the square root of the variance of the estimate. The formula for calculating the variance of the volume estimate is:

$$V(\hat{Y}) = \sum_{h=1}^H \left[N_h^2 \frac{(1 - \frac{n_h}{N_h})}{n_h(n_h - 1)} \left(\sum_{i=1}^{n_h} (y_i - T x_i)^2 \right) \right] \quad (8)$$

where:

H = the total number of strata

N_h = the total number of companies in stratum h

n_h = the sample size in stratum h

y_i = the reported monthly volume for company i

x_i = the reported annual volume for company i

T = the ratio of the sum of the reported monthly volumes for sample companies to the sum of the reported annual volumes for the sample companies.

Table C-1. Standard Error for Natural Gas Deliveries and Price to Consumers by State, November 1998

State	Volume Million Cubic Feet				Price Dollars per Thousand Cubic Feet		
	Residential	Commercial	Industrial	Total	Residential	Commercial	Industrial
Alabama	2,493	1,676	15,118	19,856	9.94	7.53	3.26
Alaska	1,858	2,331	NA	NA	3.70	2.47	NA
Arizona	1,990	2,343	2,384	9,434	9.91	6.38	3.37
Arkansas	2,957	3,070	10,647	16,796	6.79	5.16	3.32
California	40,193	30,954	60,200	151,476	6.80	5.98	3.48
Colorado	8,454	5,059	5,399	19,969	5.18	3.83	2.41
Connecticut	3,259	3,256	2,641	9,164	10.51	6.74	4.19
Delaware	575	446	1,415	3,589	9.38	6.93	3.85
District of Columbia	1,084	1,209	0	2,293	9.29	7.69	—
Florida	935	2,852	11,473	33,679	12.19	6.47	4.18
Georgia	9,306	4,110	13,015	26,768	3.43	3.34	3.01
Hawaii	40	173	0	214	19.41	13.04	—
Idaho	1,507	1,047	2,799	5,353	5.43	4.83	3.16
Illinois	43,854	17,234	28,080	90,646	5.01	4.84	3.61
Indiana	NA	NA	NA	NA	NA	NA	NA
Iowa	6,343	4,257	9,960	20,712	5.69	4.41	3.51
Kansas	6,968	3,672	13,258	NA	5.98	5.84	NA
Kentucky	6,142	3,368	7,950	17,611	5.67	5.05	3.24
Louisiana	2,678	2,174	71,246	96,980	7.93	6.19	1.26
Maine	NA	NA	NA	NA	NA	NA	NA
Maryland	6,554	3,487	2,959	13,189	7.86	6.07	4.76
Massachusetts	NA	NA	8,152	NA	NA	7.10	NA
Michigan	29,476	15,353	25,540	73,550	4.80	4.64	3.60
Minnesota	12,214	8,931	9,226	30,642	5.30	4.27	2.82
Mississippi	1,833	2,182	6,278	13,846	6.80	3.64	2.84
Missouri	8,075	4,410	4,744	17,748	6.62	5.50	4.46
Montana	2,079	1,262	1,563	4,937	5.27	5.24	5.31
Nebraska	2,667	1,935	2,918	NA	4.81	NA	3.23
Nevada	2,526	1,822	2,730	11,727	7.14	6.33	4.53
New Hampshire	597	323	NA	NA	8.27	NA	NA
New Jersey	NA	NA	NA	NA	NA	NA	NA
New Mexico	3,545	2,533	3,439	11,763	4.22	3.34	2.60
New York	NA	NA	NA	NA	NA	NA	NA
North Carolina	4,022	2,870	9,456	16,376	8.33	6.89	3.90
North Dakota	1,036	1,042	1,712	3,789	5.08	4.31	2.64
Ohio	29,741	14,908	28,292	73,111	6.15	5.74	4.69
Oklahoma	4,327	2,911	12,518	31,292	6.31	6.24	3.39
Oregon	3,150	2,689	8,625	18,653	6.88	4.43	3.50
Pennsylvania	19,152	11,849	18,945	50,045	8.18	6.63	4.10
Rhode Island	1,408	996	2,165	4,569	9.79	8.11	3.68
South Carolina	1,754	1,531	9,092	12,475	8.96	6.58	3.17
South Dakota	1,157	914	470	2,731	5.35	4.24	3.17
Tennessee	4,525	4,239	12,705	21,469	6.62	5.97	3.79
Texas	13,025	18,725	187,889	281,438	6.58	4.40	2.18
Utah	5,808	3,182	3,533	12,669	5.77	4.69	3.24
Vermont	213	276	181	673	6.64	4.95	2.30
Virginia	5,980	5,371	6,148	18,124	8.52	6.19	4.18
Washington	NA	NA	NA	NA	NA	NA	NA
West Virginia	NA	2,667	NA	NA	NA	6.12	NA
Wisconsin	11,803	8,101	12,952	33,446	6.06	4.97	4.17
Wyoming	NA	NA	4,510	NA	NA	NA	3.79
Total	385,260	262,160	720,364	1,545,664	6.66	5.28	2.82

NA Not Available.
— Not Applicable.

Source: Energy Information Administration, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Appendix D

Natural Gas Reports and Feature Articles

Reports Dealing Principally with Natural Gas and/or Natural Gas Liquids

- *Natural Gas Annual 1995*, DOE/EIA-0131(95), November 1996.
- *Natural Gas Annual 1993 Supplement: Company Profiles*, DOE/EIA-0131(93/S), February 1995.
- *Natural Gas 1996 Issues and Trends*, DOE 0560(96), December 1996.

Other Reports Covering Natural Gas, Natural Gas Liquids, and Other Energy Sources

- *Monthly Energy Review*, DOE/EIA-0035. Published monthly. Provides national aggregate data for natural gas, natural gas liquids, and other energy sources.
- *Short-Term Energy Outlook*, DOE/EIA-0202. Published quarterly. Provides forecasts for next six quarters for natural gas and other energy sources.
- *Natural Gas 1995: Issues and Trends*, DOE/EIA-0560(95), November 1995.
- *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves - 1995 Annual Report*, DOE/EIA-0216(95)/Advance Summary, October 1996.
- *Annual Energy Review 1995*, DOE/ EIA-0384(95), July 1996. Published annually.
- *Annual Report to Congress 1995 DOE/ EIA-01733(95), July 1996. Published annually.*
- *Annual Energy Outlook 1996*, DOE/ EIA-0383(96), January 1996. Published annually.

Selected One-Time Natural Gas and Related Reports

- *The Value of Underground Storage in Today's Natural Gas Industry*, DOE/EIA-0591, March 1995.
- *Natural Gas Productive Capacity for the Lower 48 States, 1980 through 1995*, DOE/EIA-0542(95), July 1994.
- *Largest U.S. Oil and Gas Fields*, DOE/EIA-TR-0567, August 1993.
- *Energy Policy Act Transportation Rate Study*, DOE/EIA-0571, October 1993.
- *Energy Policy Act Transportation Study: Interim Report of Natural Gas Flows and Rates*, DOE/EIA-0602, October 1995.

Selected and Recurring Natural Gas and Related Data Reference Reports

- *Directory of Energy Data Collection Forms*, DOE/EIA-0249(95), January 1996.
- *Oil and Gas Field Code Master List, 1995*, EIA-0370(95), December 1996.

Feature Articles

July 1995

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

June 1996

Natural Gas Industry Restructuring and Data Collection

(Discusses how restructuring of the natural gas industry has impacted the natural gas data collection efforts.)

July 1996

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

November 1996

U.S. Natural Gas Imports and Exports - 1995

(Contains final 1995 data on all U.S. imports and exports of natural gas.)

December 1996

Crosswell Seismology — A View from Aside

(Discusses crosswell seismology and its geologic and economic implications for the domestic oil and gas industry.)

May 1997

Restructuring Energy Industries: Lessons from Natural Gas

(Compares and contrasts the natural gas and electric power industries.)

July 1997

Intricate Puzzle of Oil and Gas “Reserves Growth”

(Discusses the factors that affect ultimate recovery estimates of a field or reservoir.)

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

August 1997

Natural gas Residential Pricing Developments During the 1996-97 Winter

(Discusses key factors that affect pricing patterns, highlights the effects of weather, utilization patterns of

natural gas storage, and pricing mechanisms used in natural gas markets.)

December 1997

Recent Trends in Natural Gas Spot Prices

(Focuses primarily on conditions and developments in the East Consuming Region and their connection to prices at the Henry Hub in the Producing Region.)

Special Focuses

January 1997

Natural Gas Productive Capacity

(Analyzes monthly natural gas wellhead productive capacity in the lower 48 States from 1985 and 1996 and project this capacity for 1996 and 1997.)

Outlook for Natural Gas Through 2015

(Presents an outlook for natural gas through 2015.)

August 1997

Worldwide Natural Gas Supply and Demand And the Outlook For Global LNG Trade

(Focuses on natural gas into the next century with emphasis on world natural gas supply and demand to 2015.)

September 1997

Advance Summary: U.S. Crude Oil, Natural Gas, and Natural gas Liquids Reserves, 1996 Annual Report - Advance Summary

(Focuses on proved reserves of domestic crude oil, natural gas, and natural gas liquids.)

May 1998

Deliverability on the Interstate Natural Gas Pipeline System

(Examines the capability of the interstate pipeline network to move gas to various U.S. markets and discusses changes occurring since 1990.)

Special Reports

March 1997

Natural Gas Analysis and Geographic Information Systems

(Explores how geographic information system techniques and methodologies are being used by the Energy Information Administration.)

April 1997

Natural Gas Pipeline and System Expansions

(Examines recent expansions to the North American natural gas)

Natural Gas 1996: Highlights

(Reviews data for 1996 based on Energy Information Administration surveys.) pipeline network.)

July 1997

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

August 1997

U.S. Natural gas Imports and Exports - 1996

(Contains final 1996 data on all U.S. imports and exports of natural gas.)

September 1997

U.S. Underground Storage of Natural Gas in 1997: Existing and Proposed

(Examines recent and proposed expansions of underground natural gas storage capacity and deliverability in the United States as of September 1, 1997.)

October 1997

Comparison of Natural Gas Storage Estimates from the EIA and AGA

(Compares EIA and AGA estimates from January 1994 through July 1997.)

March 1998

EIA Corrects Errors in EIA's Drilling Activity Estimates Series

(Discusses and corrects errors in EIA's monthly and annual estimates of oil and gas drilling activity.)

April 1998

Natural Gas 1997: A Preliminary Summary

(Reviews data for 1997 based on Energy Information Administration surveys.)

July 1998

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

August 1998

U.S Natural Gas Imports and Exports - 1997

(Contains final 1997 data on all U.S. imports and exports of natural gas.)

Appendix E

Technical Contacts

Section	Tables		Principal Data Sources	Technical Contact
Summary Statistics: Natural Gas Production	1,2,3	Monthly: Annual:	EIA-895, "Monthly Quantity of Natural Gas Report"	Sharon Belcher (202)586-6119
		Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"	Roy Kass (202)586-4790
Extraction Loss	1	Monthly: Annual:	EIA computations Form EIA-816, "Monthly Natural Gas Liquids Report" and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production"	Margo Natof (202)586-6303
Supplemental Gaseous Fuels	2	Monthly: Annual:	EIA computations Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"	Margo Natof (202)586-6303
Imports and Exports	2	Monthly: Annual:	EIA computations Office of Fossil Energy, U.S. Department of Energy, "Natural Gas Import and Exports"	Linda Cook (202)586-6306
Price: City Gate, Residential, Commercial, and Industrial	4	Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"	Roy Kass (202)586-4790
Wellhead	4	Monthly: Annual:	EIA computations Form EIA-895, "Monthly Quantity and Value of Natural Gas Report"	Sylvia Norris (202)586-6106
Electric Utility	4	Monthly:	Form FPC-423, "Cost and Quality of Fuels for Electric Power Plants"	Roy Kass (202)586-4790
Summary of Natural Gas Imports and Exports	5,6	Monthly:	Quarterly Natural Gas Import and Export Sales and Price Report	Linda Cook (202)586-6306
Producer Related Activities: Natural Gas Production	7,8	Monthly:	EIA-895, "Monthly Quantity of Natural Gas Report"	Sharon Belcher (202)586-6119
Underground Storage:	9,10,11, 12,13,14	Monthly:	Forms FERC-8 and EIA-191, "Underground Gas Storage Report"	Carol Jones (202) 586-6168
Distribution and Consumption: Deliveries to: Residential, Commercial, Industrial, Electric Utility, All Consumers	15 16 17 18 19	Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" Form FERC-423, "Cost and Quality of Fuels for Electric Power Plants"	Roy Kass (202)586-4790
Average Price to: City Gate, Residential, Commercial, Industrial, Electric Utility	20 21 22 23 24	Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" Form FERC-423, "Cost and Quality of Fuels for Electric Power Plants"	Roy Kass (202)586-4790
Onsystem Sales	25	Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"	Roy Kass (202)586-4790
Heating Degree Days	26	Seasonal:	National Oceanic and Atmospheric Administration	Patricia Wells (202)586-6077
Highlights				Mary Carlson (202)586-4749

Appendix F

Natural Gas Electronic Products

In addition to printed publications, the Energy Information Administration distributes information concerning the natural gas industry in a variety of electronic formats through several media. Two main types of products are available electronically: *viewable documents* that may be read or printed; and *post-processable files* that may be directly used as input to a computer application without additional keying and checking of data.

Viewable documents represent complete or selected sections of publications including text, tables and graphs. They may be as specific as single tables or as general as an entire publication. Post-processable documents on the other hand are either macro-level representations of information

in published tables or micro-level respondent information representing responses on a specific nonconfidential survey.

The media used to distribute these electronic publications include: (1) The Energy Information Administration's Internet site (<http://www.eia.doe.gov> or <ftp://ftp.eia.doe.gov>); (2) Dial-in access through the Energy Information Administration's EPUB electronic bulletin board or through the Economic Bulletin Board of the Department of Commerce and the COGIS system; (3) The Energy Information Administration's quarterly CD-ROM (InfoDisk); (4) The Energy Information Administration's Fax on Demand System; and (5) diskettes.

	Internet	Dial-In	Infodisk	E-Mail	Diskette
ANNUAL PUBLICATIONS					
Natural Gas Annual, 1997 Provides information on supply and disposition of natural gas in the United States. Information is provided nationally, regionally, and by State for 1997.	V P		V P		P
Historical Natural Gas Annual, 1930 through 1997 Contains historical information about supply and disposition of natural gas at the national, regional, and State level, as well as prices at selected points in the flow of gas from wellhead to burnertip.	P		P		P
Natural Gas 1996: Issues and Trends Examines how industry restructuring continues to expand choices, and challenges, for industry, participants, and natural gas customers.	V		V		
Natural Gas 1995: Issues and Trends Addresses current issues affecting the natural gas industry and markets, and analyzes trends in the most recent natural gas data.	V		V		
Natural Gas 1994: Issues and Trends Provides an overview of the natural gas industry in 1993 and early 1994, focusing on the overall ability to deliver gas under the new regulatory mandates of the Federal Energy Regulatory Commission's Order 636.	V		V		
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report, 1996 1996 national and State estimates of reserves, reserve changes, and production, plus industry highlights.	V		V		

V = Viewable

P = Post-Processable

E = Automatic E-Mail Updates

	Internet	Dial-In	Infodisk	E-Mail	Diskette
Natural Gas Productive Capacity for the Lower 48 States 1986-1998 Analysis of monthly natural gas wellhead productive capacity.	V		V		
MONTHLY PUBLICATIONS					
Natural Gas Monthly, from the previous 12 months Entire Publication in viewable format.	V		V		
OTHER PUBLICATIONS					
Natural Gas Weekly Market Update Analysis of current price, supply and storage data along with a two week snapshot of the weather in four distinct metropolitan areas.	V				
Deliverability on the Interstate Natural Pipeline System This publication chronicles and analyzes pipeline growth from the perspective of the natural gas shipper and pipeline transporter.	V				
Natural Gas 1997: Preliminary Highlights This Special Focus, which was featured in the April 1998 issue of the <i>Natural Gas Monthly</i> , presents events that affected the natural gas industry during 1997.	V	P			
Energy Policy Act Transportation Study: Interim Report on Natural Gas Flow and Rates (EPACT) Analysis of natural gas transportation rates and distribution patterns for the period 1988 through 1994.	V		V		
Oil Production Capacity Extension Cost for the Persian Gulf Quantifies the cost of expanding oil production capacity for the Persian Gulf based on geologic plays and fields rather than country-level economics. Development costs and volumes are estimated for the next 15 years.	V		V		
Costs and Indices for Domestic Oil and Gas Fields Equipment and Production Operations 1993-1996 Cost of equipment and operation of oil and gas wells in the lower 48 States.	V		V		
Drilling Sideways- A Review of Horizontal Well Technology and the Domestic Application Salient aspects of current and near-future horizontal drilling and completion technology.	V		V		
International Oil and Gas Exploration and Development Compilation of country-level data and assessment of regional trends relating to upstream aspects of global oil and gas supply.	V		V		
Oil and Gas Field Code Master List Comprehensive listing of U.S. oil and gas field names as of October 1997.	V		V		
Oil and Gas Resources of the Fergana Basin (Uzbekistan, Tadzhikistan, and Kyrgyzstan) Reservoir level assessments of oil and gas ultimate recovery in the former Soviet Union area.	V		V		

V = Viewable P = Post-Processable E = Automatic E-Mail Updates

Appendix F

	Internet	Dial-In	InfoDisk	E-Mail	Diskette
The Value of Underground Storage in Today's Natural Gas Industry. Explores the significant and changing role of storage in the industry.	V		V		
U.S. Oil and Gas Development in the Early 1900's Analyses of the growing prominence of smaller energy companies in U.S. oil and gas production	V		V		
ANNUAL DATA					
Natural Gas Supply and Disposition, by State 1997	V P	V P			
Natural Gas Summary, United States by Year 1990-1997	V P	V P			
Natural Gas Annual 1997 data Self-extracting file containing data (in comma-delimited format) that appear in the tables in the 1997 <i>Natural Gas Annual</i> .	P		P		P
Historical Natural Gas Annual 1997 data Self-extracting file containing historical information (in comma-delimited format) found in the tables in Volume 2 of the 1997 <i>Natural Gas Annual</i> . Annual historical data at the national level are presented for 1930-1997. Annual information by State and region is presented for 1967-1997.	P		P		P
1997 Data reported on Form EIA-176 A self-extracting compressed file containing data reported on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," for 1997.	P				P
1996 Data reported on Form EIA-176 A self-extracting compressed file containing data reported on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," for 1996.	P				P
Data archive of historical reserves estimates for U.S. Crude Oil, Natural Gas, and Natural Gas Liquids National, State, and State subregion data published in the reserves balance tables of U.S. <i>Crude Oil, Natural Gas, and Natural Gas Liquids Reserves</i> from 1977 forward.	P				P
MONTHLY DATA					
Natural Gas Production, United States by Month 1989-forward	P	P			
Natural Gas Supply and Disposition 1989-forward	P	P		E	
Natural Gas Imports and Exports 1989-forward	P	P			
Natural Gas Underground Storage: United States Total by Month 1989-forward	P	P		E	
Natural Gas Prices: United States Total by Month 1989-forward	P	P		E	
Natural Gas Consumption by Sector: United States Total by Month 1989-forward	P	P		E	
SELF-EXTRACTING COMPRESSED DATA FILE ARCHIVES					
Natural Gas Consumption and Prices, for most recent 2-3 years	P	P			
Natural Gas Consumption and Prices, for 1984-1995	P	P			

V = Viewable

P = Post-Processable

E = Automatic E-Mail Updates

Glossary

Balancing Item: Represents the difference between the sum of the components of natural gas supply and the sum of the components of natural gas disposition. These differences may be due to quantities lost or to the effects of data reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems which vary in scope, format, definitions, and type of respondents.

Base (Cushion) Gas: The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

British Thermal Unit (Btu): The heat required to raise the temperature of one pound of water by one degree Fahrenheit at or near 39.2 degrees Fahrenheit.

City-gate: A point or measuring station at which a gas distribution company receives gas from a pipeline company or transmission system.

Commercial Consumption: Gas used by nonmanufacturing organizations such as hotels, restaurants, retail stores, laundries, and other service enterprises, and gas used by local, State, and Federal agencies engaged in nonmanufacturing activities.

Depletion: The loss in service value incurred in connection with the exhaustion of the natural gas reserves in the course of service.

Depreciation: The loss in service value not restored by current maintenance, incurred in connection with the consumption or respective retirement of a gas plant in the course of service from causes that are known to be in current operation and against which the utility is not protected by insurance; for example, wear and tear, decay, obsolescence, changes in demand and requirements of public authorities, and the exhaustion of natural resources.

Dry Natural Gas Production: Marketed production less extraction loss.

Electric Utility Consumption: Gas used as fuel in electric utility plants.

Exports: Natural gas deliveries out of the continental United States and Alaska to foreign countries.

Extraction Loss: The reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Flared: The volume of gas burned in flares on the base site or at gas processing plants.

Gross Withdrawals: Full well stream volume, including all natural gas plant liquid and nonhydrocarbon gases, but excluding lease condensate. Also includes amounts delivered as royalty payments or consumed in field operations.

Imports: Natural gas received in the Continental United States (including Alaska) from a foreign country.

Independent: Producers: Any person who is engaged in the production or gathering of natural gas and who sells natural gas in interstate commerce for resale but who is not engaged in the transportation of natural gas (other than gathering) by pipeline in interstate commerce.

Industrial Consumption: Natural gas used by manufacturing and mining establishments for heat, power, and chemical feedstock.

Interstate Companies: Natural gas pipeline companies subject to FERC jurisdiction.

Intransit Deliveries: Redeliveries to a foreign country of foreign gas received for transportation across U.S. territory and deliveries of U.S. gas to a foreign country for transportation across its territory and redelivery to the United States.

Intransit Receipts: Receipts of foreign gas for transportation across U.S. territory and redelivery to a foreign country and redeliveries to the United States of U.S. gas transported across foreign territory.

Intrastate Companies: Companies not subject to FERC jurisdiction.

Lease and Plant Fuel: Natural gas used in well, field, lease operations and as fuel in natural gas processing plants.

Liquefied Natural Gas (LNG): Natural gas that has been liquefied by reducing its temperature to minus 260 degrees Fahrenheit at atmospheric pressure.

Marketed Production: Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations. See Explanatory Note 1 for discussion of coverage of data concerning nonhydrocarbon gases removed.

Native Gas: Gas in place at the time that a reservoir was converted to use as an underground storage reservoir as in contrast to injected gas volumes.

Natural Gas: A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or solution with oil in natural underground reservoirs at reservoir conditions.

Nonhydrocarbon Gases: Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

Onsystem Sales: Sales to customers where the delivery point is a point on, or directly interconnected with, a transportation, storage, and/or distribution system operated by the reporting company.

Pipeline Fuel: Gas consumed in the operation of pipelines, primarily in compressors.

Repressuring: The injection of gas into oil or gas formations to effect greater ultimate recovery.

Residential Consumption: Gas used in private dwellings, including apartments, for heating, cooking, water heating, and other household uses.

Salt Cavern Storage Field: A storage facility that is a cavern hollowed out in either a salt “bed” or “dome” formation.

Storage Additions: The volume of gas injected or otherwise added to underground natural gas or liquefied natural gas storage during the applicable reporting period.

Storage Withdrawals: Total volume of gas withdrawn from underground storage or liquefied natural gas storage during the applicable reporting period.

Supplemental Gaseous Fuels Supplies: Synthetic natural gas, propane-air, refinery gas, biomass gas, air injected for stabilization of heating content, and manufactured gas commingled and distributed with natural gas.

Synthetic Natural Gas (SNG): A manufactured product chemically similar in most respects to natural gas, that results from the conversion or reforming of petroleum hydrocarbons and may easily be substituted for or interchanged with pipeline quality natural gas.

Therm: One-hundred thousand British thermal units.

Underground Gas Storage Reservoir Capacity: Interstate company reservoir capacities are those certificated by FERC. Independent producer and intrastate company reservoir capacities are reported as developed capacity.

Vented Gas: Gas released into the air on the base site or at processing plants.

Wellhead Price: Represents the wellhead sales price, including charges for natural gas plant liquids subsequently removed from the gas, gathering and compression charges, and State production, severance, and/or similar charges.

Working (Top Storage) Gas: The volume of gas in an underground storage reservoir above the designed level of the base. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any season.